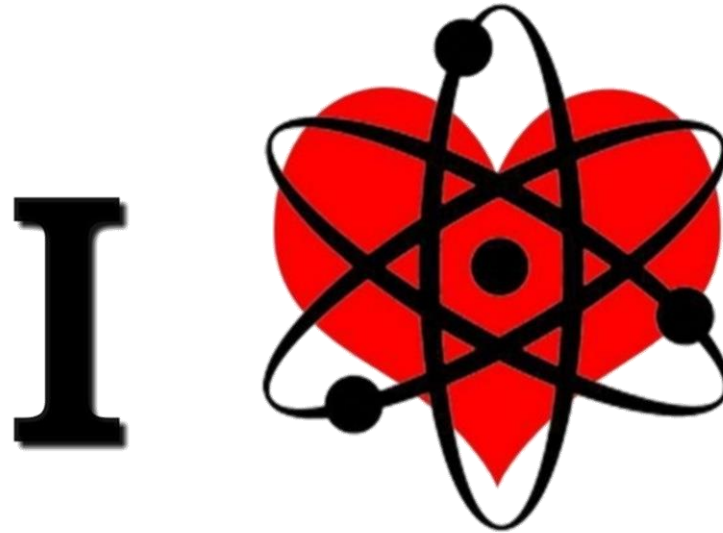
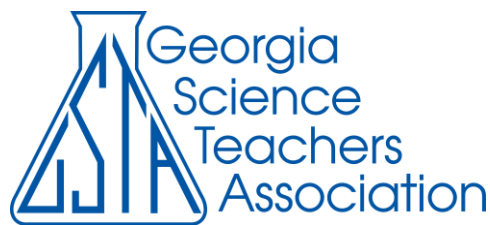


2019 GSTA ANNUAL CONFERENCE



SCIENCE!



Columbus Convention and Trade Center, Columbus, Georgia

February 14 -16, 2019

www.georgiascienceteacher.org

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

GSTA Conference Leadership Team

Dr. Donald White, Director

Dr. Judy Ward, Program Chair

Dr. Michael Seckinger, Local Arrangements

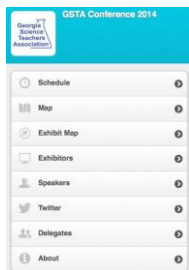
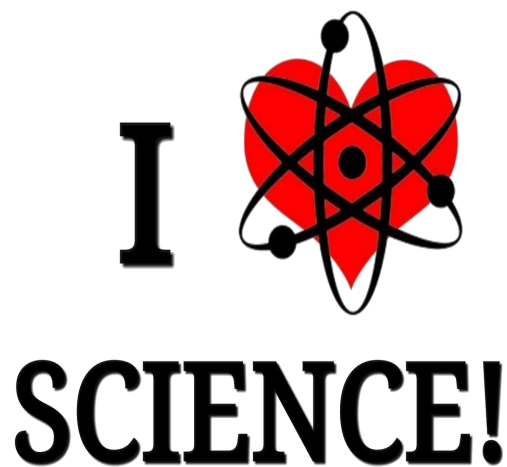
Dr. Sharon Boyer, Exhibits

Zoe Evans, Registration

Dr. Sally Creel, Awards

Dr. Michael Seckinger, Field Trips

Dr. Tamioka Grizzle, Volunteer Coordinator



Get the Conference App
Search "GSTA" in the iOS
or Android app store



Follow Us on Twitter
[@GSTANews](#)
[#GSTA19](#)



Join Our Facebook
Group
[facebook.com/groups/
GSTANews/](https://facebook.com/groups/GSTANews/)

Get Conference Information and Connect With Your Colleagues

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

GSTA Board of Directors 2018-2019

Director	Dr. Donald White
President	Sarah Eales
President Elect	Dr. Judy Ward
Vice President	Dr. Donna Barrett-Williams
Secretary	Tracy Matthews
Executive Secretary/Treasurer	Nancy Brim
Supervisors Representative	Dr. Amy Peacock
College Representative	Dr. Amanda Glaze
High School Representative	Justin Harvey
Middle School Representative	Donita Legoas
Elementary School Representative	Dr. Tameika Grizzle
District 1 Director	Marc Pedersen
District 2 Director	Christina Curtis
District 3 Director	Chinita Allen
District 4 Director	Melany Bracking
District 5 Director	Stephanie Miles
District 6 Director	Ashley Cody
District 7 Director	Dr. Nicole Page
District 8 Director	Dr. Katie Brkich
District 9 Director	Kristina Istre
District 10 Director	Heather Ledet
District 11 Director	Jenna Rhodes
District 12 Director	Angela Curtis-Wolf

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

GSTA Presidents

Name	Term	Conference Location	Name	Term	Conference Location
Judy Ward	2018-2019	Columbus	Daisy Waldrep	1987-1988	Savannah
Donald White	2017-2018	Atlanta: NSTA National	John Finley	1986-1987	Peachtree City
Brian Butler	2016-2017	Stone Mountain	Kathy O'Neil	1985-1986	Peachtree City
Jeremy Peacock	2015-2016	Stone Mountain	Don Berkowitz	1984-1985	Rock Eagle
Donna Governor	2014-2015	Macon	Judy Dennison	1983-1984	Rock Eagle
Zoe Evans	2013-2014	Macon	Carol Rutland	1982-1983	Rock Eagle
Sally Creel	2012-2013	Atlanta: NSTA Regional	Jaunita Chitwood	1981-1982	Callaway Gardens
Kelly Price	2011-2012	Atlanta	Jaunita Chitwood	1980-1981	Callaway Gardens
Chris Kennedy	2010-2011	Atlanta	Betty Higgins	1979-1980	Woodward Academy
Ann Collins	2009-2010	Savannah	Kathryn Garrard	1978-1979	NSTA Regional
Wendy Joiner	2008-2009	Savannah	William Barrow	1977-1978	Athens History Village
Gail Sinkule	2007-2008	Athens	James Coleman	1976-1977	Locust Grove
Marion Reeves	2006-2007	Athens	Odell Owens, Jr.	1975-1976	NSTA Regional
Steve Rich	2005-2006	Columbus	Connie McNeil	1974-1975	Macon
Gail Marshall	2004-2005	Columbus	Wayne Edwards	1973-1974	Savannah
Venetia Butler	2003-2004	Atlanta: NSTA National	Willis Brown, Jr.	1972-1973	---
Karol Stephens	2002-2003	Jekyll Island	Lonnie Love	1971-1972	---
Judy Godfrey	2001-2002	Jekyll Island	Richard Johnson	1970-1971	---
Ellen Roach	2000-2001	Macon	Lucy Smith	1969-1970	---
Mary Atwater	1999-2000	Macon	Helen Carter	1968-1969	---
Mark Stallings	1998-1999	Atlanta	Tully Pennington	1967-1968	---
Sharon Boyer	1997-1998	Atlanta	Montine Wilson	1966-1967	---
Bob Moore	1996-1997	Augusta	Charles Coleman	1965-1966	---
Joe Moore	1995-1996	Augusta	H.V. Bullock	1964-1965	---
Francis Gardner	1994-1995	Savannah	Al Woodard	1963-1964	---
Mary Wilde	1993-1994	Savannah	Bill Leach	1962-1963	---
Ellen Averill	1992-1993	Atlanta Airport	Dallas Stewart	1961-1962	---
Linda Bostick	1991-1992	Atlanta Airport	Cora Middleton	1960-1961	---
Melody Hall	1990-1991	Columbus	Betty Cheek	1959-1960	---
Margaret Eidson	1989-1990	Atlanta: NSTA National	Liley Calhoun	1958-1959	---
Linda Mitchell	1988-1989	Savannah			

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Georgia Presidential Awardees for Excellence in Science Education



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 weeklong 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.

Year	Awardee (Grade Level)	
2016	Carrie Beth Rykowski, Cumming (K-6)	
2015	Marc Pedersen, Dallas (7-12)	
2014	Steven King, Athens (K-6)	
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-Gooze, 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)	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

2019 GSTA Awards

TEACHERS OF THE YEAR

Elementary Level



Judie Beccaro
Coweta County Schools

High School Level



Chelsea Sexton
Cobb County Schools

GEORGIA
SCIENCE
TEACHERS
ASSOCIATION

2019



CONFERENCE GRANT

Robert Buice
Floyd County Schools

SCIENCEQUEST TEACHER SCHOLARSHIP

Alana Davis
Cobb County Schools



Natalia Celis
GA Cyber Academy

STUDENT ADVENTURE SCHOLARSHIP



Sara Makboul & Jacob Rippe
Kennesaw Mtn HS

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

MINI-GRANTS



LeAnne Cheatham

Wills Road
Elementary

*"Wills Road
Wolfpack
Weather
Howl"*



Brian Heglund

Etowah High
School

*"Etowah Electric
Eagles F.I.R.S.T.
FRC Competition
Robot"*



Ashley Greenway

Elm Street Elementary
Rome City Schools

Natalie Rachel

S.L. Lewis Elementary
Fulton County Schools

Sharon Webb

Coal Mountain Elementary
Forsyth County

THANKS TO OUR SPONSORS



CMS

CAPITAL MICROSCOPE SERVICES, INC.

(800) 377-4289

**hand2
mind®**



sargent welch

**ward's
science+**



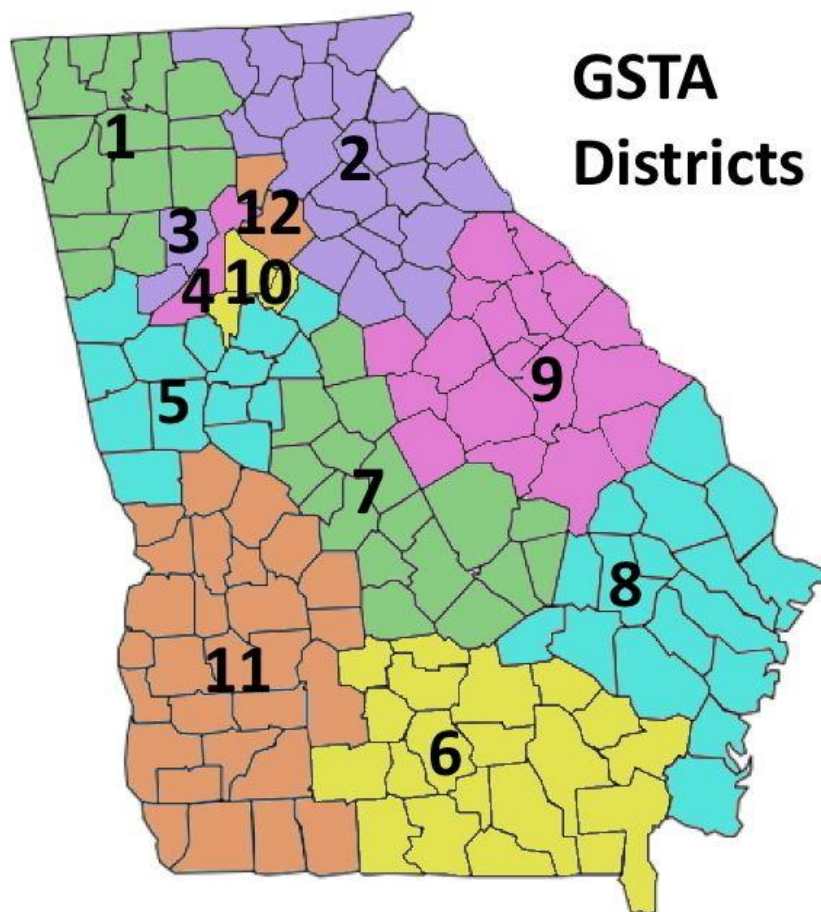
**LEGENDS OF
LEARNING**



**National
Science
Teachers
Association**

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Note: Your GSTA District is determined by your county of employment, with the exception that all Atlanta Public Schools are in District 4.



District 1: Bartow, Bremen City, Calhoun City, Cartersville City, Catoosa, Chattooga, Cherokee, Chickamauga City, Dade, Dalton City, Floyd, Gilmer, Gordon, Haralson, Murray, Paulding, Pickens, Polk, Rome City, Trion City, Walker, Whitfield

District 2: Banks, Barrow, Dawson, Clarke, Elbert, Fannin, Franklin, Greene, Habersham, Hall, Hart, Jackson, Lumpkin, Madison, Morgan, Oconee, Oglethorpe, Rabun, Stephens, Towns, Union, Walton, White

District 3: Cobb, Douglas, Marietta City

District 4: Fulton, Atlanta Public Schools

District 5: Butts, Carroll, Carrollton City, Coweta, Fayette, Harris, Heard, Henry, Lamar, Meriwether, Newton, Pike, Spalding, Thomaston-Upson, Troup

District 6: Atkinson, Bacon, Ben Hill, Berrien, Brantley, Brooks, Clinch, Charleston, Coffee, Colquitt, Cook, Echols, Irwin, Lanier, Lowndes, Pierce, Tift, Turner, Ware

District 7: Bibb, Bleckley, Crawford, Dodge, Dublin City, Houston, Jasper, Jones, Laurens, Monroe, Montgomery, Peach, Pulaski, Telfair, Treutlen, Twiggs, Wheeler, Wilcox

District 8: Appling, Bulloch, Bryan, Camden, Candler, Chatham, Effingham, Evans, Glynn, Jeff Davis, Liberty, Long, McIntosh, Screven, Tatnall, Toombs, Vidalia City, Wayne

District 9: Baldwin, Burke, Columbia, Emanuel, Glascock, Hancock, Jefferson, Jenkins, Johnson, Lincoln, McDuffie, Putnam, Richmond, Taliaferro, Warren, Washington, Wilkinson

District 10: Clayton, Decatur City, DeKalb, Rockdale

District 11: Baker, Calhoun, Chattahoochee, Clay, Crisp, Decatur, Dooly, Dougherty, Early, Grady, Lee, Macon, Marion, Miller, Mitchell, Muscogee, Pelham City, Quitman, Randolph, Schley, Seminole, Stewart, Sumter, Talbot, Taylor, Terrell, Thomas, Thomasville City, Webster, Worth

District 12: Buford City, Gwinnett, Forsyth

2019 GSTA CONFERENCE: I LOVE SCIENCE!!



Conference At A Glance

Wednesday, February 13, 2019

- 6:00 - 8:00 pm Registration

Thursday, February 14, 2019

- 7:00 am - 5:00 pm Registration
- 8:00 am - 5:00 pm Exhibit Hall Open
- 8:00 am - 5:00 pm Field Trips (*Tickets Required*)
- 8:00 am - 11:00 am Concurrent Sessions
- 11:00 am - 11:50 am General Session, Dining Gallery
 - **Keynote Speakers: Karen Ansbery, Emily Morgan, Picture Perfect Science**
- 12:00 pm - 5:00 pm Concurrent Sessions
- 4:30 pm - 5:30 pm District & Level Meet & Greet, Foundry Pre-Event Area
- 5:30 pm - 7:30 pm Whitewater Social, Rm 104

Friday, February 15, 2019

- 7:00 am - 5:00 pm Registration
- 8:00 am - 5:00 pm Exhibit Hall Open
- 8:00 am - 5:00 pm Field Trips (*Tickets Required*)
- 8:00 am - 10:00 am Concurrent Sessions
- 10:00 am - 11:50 pm General Session, Dining Gallery
 - **Keynote Speakers: Dr. Jason Crean and Kristin Rademaker**
 - **11:00am GSTA Annual Business Meeting**
- 12:00 pm - 5:00 pm Concurrent Sessions
- 5:00 pm - 5:30 pm Exhibitor Door Prize Drawing, Exhibit Hall (MUST be present to win!)
- 6:30 pm - 8:00 pm Awards Banquet, Foundry (*Tickets Required*)
- **Featured Speaker: Dr. Christine Royce, NSTA President**
- 8:00pm - 10:00pm '80s Prom (free- '80s attire requested)

Saturday, February 16, 2017

- 8:00 am - 9:30 am Registration
- 8:00 am - 11:00 am Concurrent Sessions

2019 Conference Socials

District & Level Meet & Greet - Thursday 4:30 to 5:30 pm

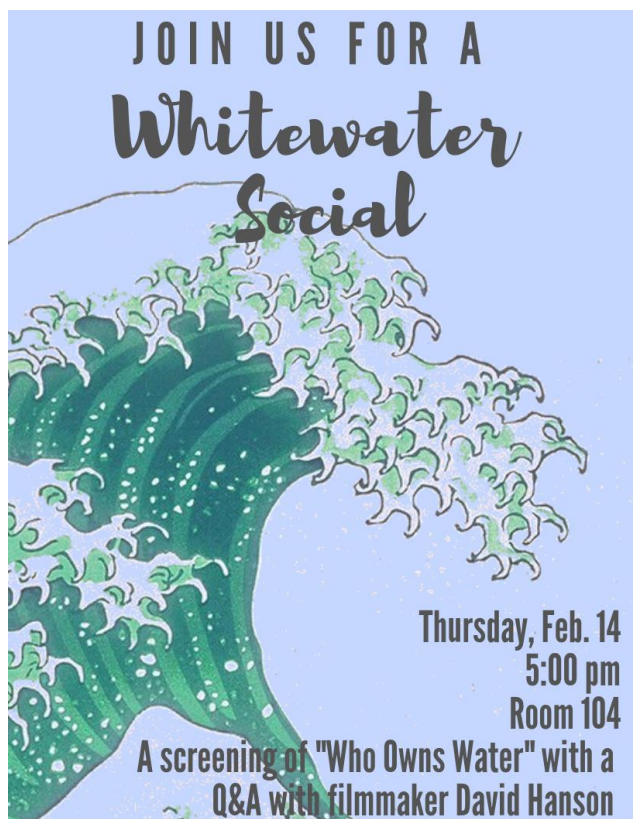
- Meet your District & Level representatives in Foundry Pre-Event Area
- Appetizers and beverages provided, cash bar available

Whitewater Social - Thursday 5:30 – 7:30 pm

- Refreshments provided
- See the next page for more information

'80s Prom - Friday 8:00 pm – 10:00 pm

- Dance the night away to your favorite '80s (and '90s) songs with *Members Only*!
- Wear your favorite '80s outfit and enjoy '80s inspired food and drink and drink (cash bar)



2019 GSTA CONFERENCE: I LOVE SCIENCE!!



GSTA PRESENTS

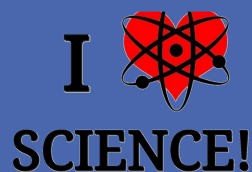
WHO OWNS WATER

Plus a Q & A with filmmaker David Hanson

THURSDAY FEBRUARY 14
5:30PM ROOM 104

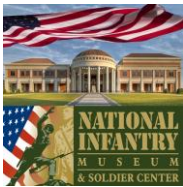

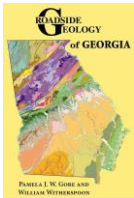
Immediately following the film, enjoy an interactive
Whitewater learning experience with Chattahoochee River
Keepers, Whitewater Express, Oxbow Meadows
Environmental Center and More!!

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

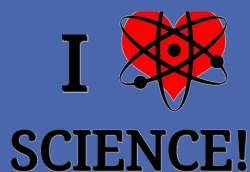


Field Trips



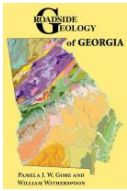
- Field trip tickets will be available at the GSTA Store outside the exhibit hall.
- All trips will depart from the main entrance to the conference center. Check in at the Field Trip station across from the pre-registration area.
- All field trips must have a minimum of 10 participants or will be cancelled, with full refunds.
- No refunds can be given unless GSTA cancels the trip.

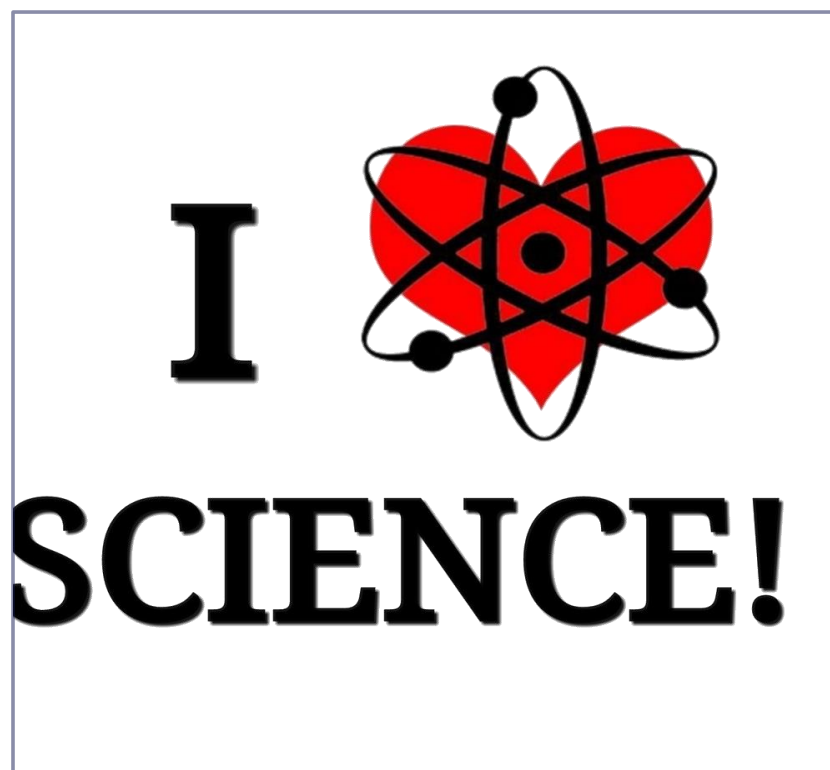
Destination	Schedule	Cost	Description
National Infantry Museum 	Thursday, 9:30-11:30 am	\$10	With thousands of artifacts, monuments, interactive exhibits and video presentations on display, the National Infantry Museum is one of the nation's leading military history destinations. Visitors of all ages can experience first-hand the American Infantryman's journey to defeat tyranny around the globe.
Naval Civil War Museum 	Thursday, 12:30-2:30pm	\$12	Looking to connect your STEAM program with history? This is the field trip for you! This guided tour will take you through the technological advances in Civil War era Naval technology. See the USS Monitor and CSS Albemarle ironclad warships!
Roadside Georgia Geology 	Thursday, 3 -4:30pm	\$5	Join noted author Dr. Bill Witherspoon and Bill Waggener as they discuss how geology can be experienced everywhere in Georgia even right outside the Columbus Conference Center! This is a walking tour so bring comfy shoes and a jacket!

2019 GSTA CONFERENCE: I LOVE SCIENCE!!



Field Trips

Destination	Schedule	Cost	Description
Oxbow Meadows Environmental Learning Center 	Friday, 10:30am-12pm	\$12	You'll take a "phenomenal tour" of the Oxbow Meadows Environmental Learning Center. Oxbow Meadows staff will guide you to find phenomena that you can take back to your classroom to engage your students!
Coca Cola Space Science Center 	Friday, 1-3 pm	\$10	The Coca Cola Space Science Center offers a premier space science and astronomy hands-on experience. Visit the Westrock observatory, the Challenger Learning Center, and see more than \$17 million in NASA artifacts.
Roadside Georgia Geology 	Friday, 3 -4:30pm	\$5	Join noted author Dr. Bill Witherspoon and Bill Waggener as they discuss how geology can be experienced everywhere in Georgia even right outside the Columbus Conference Center! This is a walking tour so bring comfy shoes and a jacket!



The Learning Continues in the
Exhibit Hall

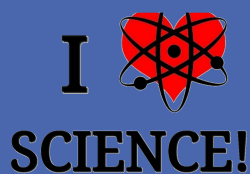
- Learn about resources, products, and services from a variety of vendors.
- Stop by the GSTA Store
- Collect 15 stamps in your Exhibit Hall Passport for a chance to win great door prizes. Drop your passport in the door prize box at the Exhibit Hall Registration Desk, by 4:30 PM on Friday.
- Door Prize drawing will be held on Friday at 5:10 PM in the Exhibit Hall. ***You must be present to win.***

GEORGIA
SCIENCE
TEACHERS
ASSOCIATION

Visit our store in the Exhibit Hall

GSTA Store

- T-shirts
- Lab Coats
- Science Toys
- NSTA Books



Conference Theme & Strands

At times, a teacher's passion can be overwhelmed by frustration, fatigue, and cynicism. Teachers are lifelong learners that inspire a passion for learning in their students and who inspire children to do great things. It is important for teachers to not only know what they are doing in their classrooms but also to know why they do it to fuel their passion. Our passion is what fuels our journey and makes it worthwhile and enjoyable. This year's conference is designed to recapture the passion that motivated us to become teachers and to inspire, rekindle, and build the capacity of teachers and educators as we stop and reflect while listening to the stories, insights, and reflections of our fellow educators, experts, and ourselves. Conference sessions this year will focus on sharing best practices, resources, and ideas based on the following strands:

- **Strand 1: Passionate About Literacy to Fuel Deeper Scientific Understanding:** A passion for reading and writing builds a strong foundation and love of scientific thinking and discovery. This strand encompasses best practices in the integration of literacy within the context of the Georgia Standards of Excellence in Science designed to improve the student's understanding and skills. Sessions will focus on how literacy strategies can be used to increase the depth and breadth of the student's scientific understanding and critical thinking skills.
- **Strand 2: Passionate About Real-World Relevance of Science Through STEM/STEAM:** Integration of STEM/STEAM in the science classroom connects scientific concepts and skills to the student's world and brings relevance across the curriculum. Sessions will focus on how STEM/STEAM can be integrated into lessons and activities that promote real-world problem-based learning that provide the student with a context for learning and achieving the goals of the Georgia Standards of Excellence in Science. Best practices on how mathematics, technology, and engineering can be integrated into science lessons will be highlighted as a context for deeper scientific understanding.
- **Strand 3: Passionate About Three-Dimensional Science Practices:** Students achieve a stronger understanding of science when disciplinary core ideas, science and engineering practices, and cross-cutting concepts are woven together within student learning opportunities that explore real-world phenomena and allow students to solve authentic problems. Sessions will focus on engaging teachers in exploring how to use a three-dimensional approach to teaching the Georgia Standards of Excellence in Science that results in authentic student products.

NOTE: While sessions included in these strands will be highlighted for this year's conference, workshops, presentations and activity-rich sessions across all areas of science education will be included.

SPECIAL SESSIONS OF INTEREST

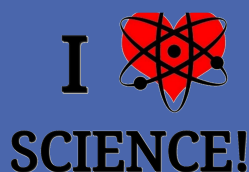
FIRST-TIMERS SESSION: THURSDAY 8 AM – Room 101

- *Come learn how to get the most out of your GSTA Conference!*

SHARE-A-THONS – BRING YOUR BEST STUFF TO SHARE, IDEAS WELCOME TOO!

- ***ELEMENTARY SHARE-A-THON: FRIDAY 1 PM –
SYCAMORE B***
- ***MIDDLE SHARE-A-THON: FRIDAY 2 PM – SYCAMORE B***
- ***HIGH SHARE-A-THON: FRIDAY 3 PM – SYCAMORE B***

2019 GSTA CONFERENCE: I LOVE SCIENCE!!



Conference Sessions - Thursday



Session Feedback Surveys - Thursday

- Please provide feedback on each session you attend today by following the URL below to access the online feedback form.
- <http://bit.ly/GSTA19Thu>

THURSDAY- 8:00AM

Day:	Thursday	Time:	8:00 AM
Title:	<i>First-Timers Session</i>	Room:	101
Presenter(s):	Sally Creel, Brian Butler	Vendor:	Educator
Session Length	50 minutes		
Description:	If this is your first time coming to the Georgia Science Teachers' Association Conference, then come on and learn the best ways to navigate the conference to get the most out of it that you can!		
Level(s):	All	Type:	Presentation
Strand:	All		
Sci. & Eng.	All		
Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	8:00 AM
Title:	<i>Energy simulations for supporting 3D learning in your physical science classroom</i>	Room:	102
Presenter(s):	Barbara King, Michelle Hurst, Sabrina Grossman, Jayma Koval, Robyn Davis	Vendor:	Educator
Session Length	50 minutes		
Description:	The Advanced Manufacturing and Prototyping Integrated to Unlock Potential (AMP-IT-UP) project is an NSF-sponsored Math and Science Partnership between the Griffin-Spalding County School System and Georgia Tech's Center for Education Integrating Science, Mathematics and Computing (CEISMC). As part of the AMP-IT-UP project, week-long modules were developed that emphasize the integration of math and science practices within those middle school core courses.		
Level(s):	Middle (6-8); Physical Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting Concepts:	Stability and Change
Practices:			

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	8:00 AM
Title:	<i>Whale Researchers: A Real World Insight of Right Whale Research</i>	Room:	104
Presenter(s):	Sydney Fye, Beth Palmer	Vendor:	Educator
Session Length	50 minutes		
Description:	Interactive presentation learning how researchers identify and track endangered right whales by their unique callosity patterns		
Level(s):	Upper Elementary (3-5), Middle (6-8) Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Patterns

Day:	Thursday	Time:	8:00 AM
Title:	<i>Building and Sustaining a High School Research Program</i>	Room:	202
Presenter(s):	Marc Pedersen	Vendor:	Educator
Session Length	50 minutes		
Description:	Interested in conducting relevant research in your classroom? In this session, you will learn how to get your program started. You will also hear suggestions for how you can sustain and fund your students' research.		
Level(s):	High (9-12), Advanced High (AP/IB)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	8:00 AM
Title:	<i>SciLit Anyone?</i>	Room:	203
Presenter(s):	Phyllis E. Lott	Vendor:	Educator
Session Length	50 minutes		
Description:	This session emphasis literacy strategies you can implement quickly, use as formative or summative assessment, and is hands-on minds-on activities.		
Level(s):	Grades: 3-5 Upper Elementary, 6-8 Middles; 9-12 Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Stability and Change

Day:	Thursday	Time:	8:00 AM
Title:	<i>Focus on Forestry in Environmental Science</i>	Room:	Sycamore D
Presenter(s):	Heather M Brasell	Vendor:	Educator
Session Length	50 minutes		
Description:	Forestry industry is important in Georgia. It provides valuable real-world context for student investigations and for exploring concepts critical to environmental science.		
Level(s):	Middle (6-8), High (9-12) Environmental Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Stability and Change

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	8:00 AM
Title:	<i>Motivating Students Through STEM: Engineering Wind Turbines</i>	Room:	205
Presenter(s):	Ashley Cody, Anna McCall, and Melissa Kostu	Vendor:	Educator
Session Length	50 minutes		
Description:	Design, build, and refine a wind turbine to learn about renewable energy and energy transformations. Students generate electricity, measure DC current and DC voltage.		
Level(s):	Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Developing and Using Models	Crosscutting	Structure and Function
Practices:		Concepts:	

Day:	Thursday	Time:	8:00 AM
Title:	<i>Addressing Executive Function Deficits in Math and Science</i>	Room:	206
Presenter(s):	Billie Abney	Vendor:	Educator
Session Length	50 minutes		
Description:	This presentation will address the science involved with executive function deficits as well as appropriate scaffolds to support these students in science and math.		
Level(s):	High (9-12),Advanced High (AP/IB),College	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Obtaining, Evaluating, and Communicating	Crosscutting	
Practices:	Information	Concepts:	

Day:	Thursday	Time:	8:00 AM
Title:	<i>Creating a Phenomenal 3D lesson</i>	Room:	207
Presenter(s):	Stephanie Keyser	Vendor:	Educator
Session Length	50 minutes		
Description:	Tips on writing lessons using interdisciplinary concepts that engage student learning.		
Level(s):	Middle (6-8)	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Obtaining, Evaluating, and Communicating	Crosscutting	Patterns
Practices:	Information	Concepts:	

Day:	Thursday	Time:	8:00 AM
Title:	<i>How To Host a STEM Summer Camp</i>	Room:	208
Presenter(s):	Aubrey Crook, Shayna Morgan and Leigh Anne Lawrence	Vendor:	Vendor
Session Length	50 minutes		
Description:	Summer is approaching! Would you like to host a STEM Summer Camp? Attendees will learn the necessary components to operate a successful camp at your school.		
Level(s):	Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:			
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	8:00 AM
Title:	<i>Utilizing game strategies to increase student participation and learning in 8th grade</i>	Room:	209
Presenter(s):	Lorna Smith	Vendor:	Educator
Session Length	50 minutes		
Description:	Using game strategies to increase participation and learning among 8th grade physical science students. Focus on improving literacy through vocabulary. Attendees will see game demonstrations.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Patterns

Day:	Thursday	Time:	8:00 AM
Title:	<i>Now That We Know - Sharing the STEM Fun!</i>	Room:	210
Presenter(s):	Donna Fouts, Monique Henry, Heather Rawls	Vendor:	Educator
Session Length	50 minutes		
Description:	In this session we will share activities and problems that are allowing students and teachers to enjoy learning through STEM experiences.		
Level(s):	Upper Elementary (3-5); Engineering	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Stability and Change

Day:	Thursday	Time:	8:00 AM
Title:	<i>Science Olympiad State of the Union</i>	Room:	212
Presenter(s):	Scott Cole	Vendor:	Educator
Session Length	50 minutes		
Description:	Come hear the Science Olympiad State Directors discuss the whys and hows of Science Olympiad		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	8:00 AM
Title:	<i>Picture-Perfect STEM, Grades 3-5: Using Children's Books to Inspire STEM Learning</i>	Room:	Sycamore C
Presenter(s):	Karen Ansberry and Emily Morgan	Vendor:	Educator
Session Length	50 minutes		
Description:	The authors of the Picture-Perfect STEM series will be sharing lessons that integrate STEM and literacy in grades 3-5.		
Level(s):	Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Energy and Matter: Flows, Cycles, and Conservation

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

THURSDAY- 9:00AM

Day:	Thursday	Time:	9:00 AM
Title:	<i>Houston, We Have Splashdown!</i>	Room:	101
Presenter(s):	Alec Johnson, Lester Morales	Vendor:	Educator
Session Length	50 minutes		
Description:	An in-depth look at a physics PBL unit developed in collaboration with NASA, along with other NASA resources for all subjects		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Thursday	Time:	9:00 AM
Title:	<i>Using 3-Dimensional learning and data analysis to ignite your earth science curriculum</i>	Room:	102
Presenter(s):	Barbara King, Candace Mumphery, Sabrina Grossman, Jayma Koval	Vendor:	Educator
Session Length	50 minutes		
Description:	Passionate about earth science? Explore and receive access to Georgia Tech developed curriculum modules that integrate authentic phenomena with 3D learning and highlight data analysis.		
Level(s):	Middle (6-8); Earth Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	9:00 AM
Title:	<i>Introducing Models and Modeling in science classes</i>	Room:	202
Presenter(s):	Dr. Amanda Edwards	Vendor:	Educator
Session Length	50 minutes		
Description:	How to help your students begin to use models and draw their own		
Level(s):	High (9-12)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Thursday	Time:	9:00 AM
Title:	<i>Okefenokee Swamp, TriState Water Conflict, and the Deepwater Horizon event: Leveraging water as a tool to engage students in problem-based learning.</i>	Room:	203
Presenter(s):	Lacey Huffling, Heather Scott	Vendor:	Educator
Session Length	50 minutes		
Description:	Come explore Middle and High School problem-based learning lessons developed to explore biogeographical water issues in Georgia. Leave with materials to use in your classroom		
Level(s):	Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Stability and Change

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	9:00 AM
Title:	<i>Making Paper with Project Learning Tree</i>	Room:	Sycamore D
Presenter(s):	Heather M Brasell	Vendor:	Educator
Session Length	110 minutes		
Description:	Paper Making activity from Project Learning Tree is effective in teaching 3-D STEAM content as well as engaging students of all ages.		
Level(s):	Upper Elementary (3-5),Middle (6-8); Environmental Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	9:00 AM
Title:	<i>'Dirty' STEM with Soil Chromatography</i>	Room:	205
Presenter(s):	Marissa Murdock, Michelle Veal	Vendor:	Educator
Session Length	50 minutes		
Description:	This session digs deep into investigating soil quality and composition using the science of color chromatography! Great for testing soils before growing a school garden.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB); Earth Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Energy and Matter: Flows, Cycles, and Conservation

Day:	Thursday	Time:	9:00 AM
Title:	<i>Fun Weird Science</i>	Room:	211
Presenter(s):	Ronnie Thomas	Vendor:	Vendor
Session Length	110 minutes		
Description:	Science is something that students have to DO. Take part in this OPPORTUNITY to interact with Fun Weird Science strategies as we model engaging hands-on learning experiences guaranteed to keep your scholars hooked.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	9:00 AM
Title:	<i>Phenomenal Teaching: Effective NGSS Instruction for Struggling Learners at ALL Grade Levels</i>	Room:	212
Presenter(s):	Marquita S. Blades, Jarri B. Goodman	Vendor:	Educator
Session Length	110 minutes		
Description:	This highly engaging session will focus on modeling instructional strategies for teaching crosscutting concepts to struggling learners at all grade levels.		
Level(s):	Upper Elementary (3-5), Middle (6-8), High (9-12), Supervisor/Leadership, Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	9:00 AM
Title:	<i>Find Your Phenomenon: Sound Edition</i>	Room:	213
Presenter(s):	Paige Rountree and Katie Brkich	Vendor:	Educator
Session Length	50 minutes		
Description:	Come experience a 3D, phenomenon-based early elementary lesson on sound and learn how easy it is to include phenomenon in your science experiences.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5); Physical Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	9:00 AM
Title:	<i>Your campus and community as an outdoor learning space</i>	Room:	Sycamore A
Presenter(s):	Robert Hodgdon	Vendor:	Educator
Session Length	50 minutes		
Description:	This sessions provides information on outdoor learning activities where students conduct real ecological surveys or research		
Level(s):	Middle (6-8), High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	9:00 AM
Title:	<i>Engage, Explore, Empower with Personalized Learning</i>	Room:	206
Presenter(s):	Gaganjot Singh	Vendor:	Educator
Session Length	50 minutes		
Description:	The session focuses on how to personalize learning and implement 5 E's of science through Choice & Voice, Flexible Pacing, and Mastery Based Assessment.		
Level(s):	Middle (6-8), High (9-12), Advanced High (AP/IB)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	9:00 AM
Title:	<i>Picture-Perfect STEM K-2: Using Children's Books to Inspire STEM Learning</i>	Room:	Sycamore C
Presenter(s):	Karen Ansberry and Emily Morgan	Vendor:	Educator
Session Length	50 minutes		
Description:	The authors of the Picture-Perfect STEM series will be sharing lessons that integrate STEM and literacy.		
Level(s):	Lower Elementary (K-2)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Obtaining, Evaluating, and Communicating	Crosscutting	Structure and Function
Practices:	Information	Concepts:	

THURSDAY- 10:00AM

Day:	Thursday	Time:	10:00 AM
Title:	<i>Incorporating Literacy into Stations</i>	Room:	101
Presenter(s):	Tiffany Jones	Vendor:	Educator
Session Length	50 minutes		
Description:	How to incorporate literacy stations into your current station activities.		
Level(s):	Middle (6-8),High (9-12),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Obtaining, Evaluating, and Communicating	Crosscutting	Cause and Effect: Mechanisms and Explanations
Practices:	Information	Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Under the Sea: Three-Dimensional Learning in Marine Environments</i>	Room:	102
Presenter(s):	Melissa Anderson, Kathy Duke, Barbara King, Sabrina Grossman, Jayma Koval	Vendor:	Educator
Session Length	50 minutes		
Description:	Take a Deep Dive into 3D learning while exploring authentic phenomena related to coral reefs and marine life in Georgia Tech developed curriculum modules.		
Level(s):	Middle (6-8);Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Engaging in Argument from Evidence	Crosscutting	Patterns
Practices:		Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Explosion math, using volcanoes to better understand linear equations.</i>	Room:	103
Presenter(s):	Brian Soash	Vendor:	Educator
Session Length	50 minutes		
Description:	Volcanoes are incredibly powerful forces of nature, use linear equations to explore two recent eruptions		
Level(s):	Middle (6-8); Earth Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	Patterns
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	10:00 AM
Title:	<i>Using Tinkercad to design 3 D digital cell models</i>	Room:	104
Presenter(s):	Regina L. Suriel, Janee Jackson, Cody Moncrief	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will teach you how to use Tinkercad, a modeling app, to design digital 3 D cell models		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Developing and Using Models	Crosscutting	Structure and Function
Practices:		Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Wait! You mean there's science in that?</i>	Room:	202
Presenter(s):	Dr. Amanda Edwards and Jordan Tidrick	Vendor:	Educator
Session Length	50 minutes		
Description:	Problem-based Learning labs in High School Science		
Level(s):	High (9-12),Advanced High (AP/IB);Chemistry	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	Patterns
Practices:		Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Phenomena, 3-D framework, and Collaboration: Working together to better our practice</i>	Room:	203
Presenter(s):	Lacey Huffling, Heather Scott, Elissa Blount, Gabby Coumes, CJ Elmore, Jonathan Riggins	Vendor:	Educator
Session Length	50 minutes		
Description:	Experience Middle and High School lessons developed by a collaborative group of preservice and classroom teachers to investigate phenomena using a 3-D framework.		
Level(s):	Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Analyzing and Interpreting Data	Crosscutting	Patterns
Practices:		Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Determining Learning Targets for Success with 3-D Science</i>	Room:	204
Presenter(s):	Dr. Alex Alvarez	Vendor:	Educator
Session Length	50 minutes		
Description:	Come explore GSE science standards with a modified five-step protocol tool that can be used to develop student-centered learning targets		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.		Crosscutting	
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	10:00 AM
Title:	<i>Developing Assessments that Support Science and Engineering Practices</i>	Room:	205
Presenter(s):	Rabieh J Hafza	Vendor:	Other
Session Length	50 minutes		
Description:	The Georgia Milestones Science Assessment is more rigorous than earlier EOC's. This session focuses on utilizing the released items, standards, and 3-D Science to develop exams.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Using STEM with real world connections to teach Georgia Science Standards</i>	Room:	206
Presenter(s):	Jenny Hendrix	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will help turn your average, ordinary science lessons into fun and exciting real-world STEM lessons that engage all learners.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Using Science to Teach Reading, Reading to teach Science</i>	Room:	207
Presenter(s):	Ann Crawley	Vendor:	Vendor
Session Length	110 minutes		
Description:	This session will explore Learning A-Z's Science Literacy Collection which contains digital, leveled content that strengthens students' reading and scientific literacy simultaneously. Free trials!		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Energy and Matter: Flows, Cycles, and Conservation

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	10:00 AM
Title:	<i>Full STEAM Ahead</i>	Room:	208
Presenter(s):	Brittany Moss; Leigh Smith	Vendor:	Educator
Session Length	110 minutes		
Description:	Utilizing high school students to develop an interest in STEAM topics in elementary grade levels.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),High (9-12),Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Authentic Scientific Research in Middle Grades 4-8</i>	Room:	209
Presenter(s):	Yolanda A White, Tiffany Christian, Brittany Rhea-Neely	Vendor:	Educator
Session Length	110 minutes		
Description:	Educators will receive an authentic science research experience as they gain insight into how to conduct scientific research with their students.		
Level(s):	Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	10:00 AM
Title:	<i>Incorporating Nature of Science in your GSE Classroom</i>	Room:	210
Presenter(s):	Charvonne Bailey, Robert Bennett, Claudia Hagan, Teresa Massey, Emily Turner, Renee Schwartz	Vendor:	Educator
Session Length	110 minutes		
Description:	What do you know about Nature of Science? Come find out what it is and how to apply it in your classroom.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	10:00 AM
Title:	<i>Wolves, Otters, and Wildebeest: Teaching the Dynamics of Food Webs Through Trophic Cascades</i>	Room:	Sycamore A
Presenter(s):	Robert Hodgdon	Vendor:	Educator
Session Length	50 minutes		
Description:	Examines food web dynamics through an examination of the phenomenon known as a trophic cascade which results from a disruption of a keystone species.		
Level(s):	Middle (6-8),High (9-12);Biology/Life Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	10:00 AM
Title:	<i>Molarity Murder Mystery - Using Forensics to Incorporate STEM Into Chemistry</i>	Room:	Sycamore B
Presenter(s):	Gina Clark	Vendor:	Educator
Session Length	110 minutes		
Description:	I love creating STEM challenges in the form of Forensic investigations that integrate math and science through Problem Based scenarios and Engineering Design Challenges.		
Level(s):	High (9-12); Chemistry	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

THURSDAY- 11:00AM

Featured Session



ENGAGING SCIENCE THROUGH LITERATURE, Thursday, 11:00AM- DINING GALLERY

- **Presenter:** Karen Ansberry & Emily Morgan
- **Description:** Picture books give students a context for the concepts they are exploring in the science classroom. They often have interesting storylines that can help students understand and remember concepts better than they would by using textbooks alone, which tend to present science as lists of facts to be memorized. In addition, the colorful pictures and graphics in picture books are superior to many texts for explaining abstract concepts..
- **Level:** Elementary, Middle, College, Administrators, Supervisor/Leadership, Pre-service/Early Career Teachers
- **Content:** Advocacy & Leadership

Day:	Thursday	Time:	11:00 AM
Title:	<i>A STEAM Center for the Community: Endless Opportunities to Support STEAM Learning</i>	Room:	104
Presenter(s):	Regina L. Suriel, Brian L. Gerber, Jessica N. Pippin	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will discuss a STEAM Center's many opportunities to involve multiple stakeholders in STEAM learning.		
Level(s):	College, Supervisor/Leadership	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:		Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	11:00 AM
Title:	<i>Support Literacy through Science Fairs the '4P' Way</i>	Room:	Sycamore C
Presenter(s):	Dr. Beverly Miller and Dr. Katie Brkich	Vendor:	Educator
Session Length	50 minutes		
Description:	Learn ways to make the Science Fair more equitable and ways it can support developing literacy skills based on student reflections. Take-home templates/timelines for implementation.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	
Practices:		Concepts:	

Day:	Thursday	Time:	11:00 AM
Title:	<i>Teaching Guided Science Through Stations</i>	Room:	101
Presenter(s):	Susie Throop	Vendor:	Educator
Session Length	50 minutes		
Description:	Teaching science through station based learning		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Obtaining, Evaluating, and Communicating	Crosscutting	
Practices:	Information	Concepts:	

Day:	Thursday	Time:	11:00 AM
Title:	<i>Argument-Driven Engineering</i>	Room:	102
Presenter(s):	Victor Sampson	Vendor:	Educator
Session Length	50 minutes		
Description:	Introduction to Argument-Driven Engineering		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Constructing Explanations and Designing	Crosscutting	Cause and Effect: Mechanisms and Explanations
Practices:	Solutions	Concepts:	

Day:	Thursday	Time:	11:00 AM
Title:	<i>Get a grip on evolution using the Fibonacci sequence!</i>	Room:	103
Presenter(s):	Brian Soash	Vendor:	Educator
Session Length	50 minutes		
Description:	Explore the evolution of the hand's ability to grasp using the Fibonacci sequence		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Analyzing and Interpreting Data	Crosscutting	Patterns
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	11:00 AM
Title:	<i>Pathogenic Water Pollution: An Environmental and Life Science STEM Unit</i>	Room:	Sycamore D
Presenter(s):	Chelsea Sexton, Xing Xie	Vendor:	Educator
Session Length	50 minutes		
Description:	A 5E unit plan designed with Georgia Tech fully aligned to HS EnvSci (GSE/NGSS) and APES will be shared. Also scalable to MS Life Science.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College; Environmental Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	11:00 AM
Title:	<i>Easy Ways to Bring Literacy into the Science Classroom</i>	Room:	202
Presenter(s):	Jennifer Venable, Leigh Anne Borders	Vendor:	Educator
Session Length	50 minutes		
Description:	Are you struggling to find new ways to bring literacy into the Science classroom? Come discover how you can easily fit it in your classroom in ten or minutes or less.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	

Day:	Thursday	Time:	11:00 AM
Title:	<i>How to Put the Art in STEAM... and have fun doing it.</i>	Room:	203
Presenter(s):	Dr. Kathryn Spahr M.D.	Vendor:	Educator
Session Length	50 minutes		
Description:	Don't forget about the A in STEAM! Art allows for increased creativity, critical thinking, collaboration and workforce marketability. And it's fun.		
Level(s):	Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	

Day:	Thursday	Time:	11:00 AM
Title:	<i>Water shed/stream evaluation as an engineer</i>	Room:	204
Presenter(s):	Tim Hawig, Stacey Britton, Brent Gilles	Vendor:	Educator
Session Length	50 minutes		
Description:	Back to outdoor education to recapture student interest in easy real world experiences of math, science and literacy. We are taking watershed analysis and observations of a local stream to new levels.		
Level(s):	Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	11:00 AM
Title:	<i>Using Graphic Organizers to Plan and Teach Three Dimensional Science</i>	Room:	205
Presenter(s):	Rabieh J Hafza	Vendor:	Other
Session Length	50 minutes		
Description:	Science and Engineering Practice Graphic Organizers were designed to help teachers ensure that they planned phenomena-based lessons that are aligned to the GSE.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Patterns

Day:	Thursday	Time:	11:00 AM
Title:	<i>Get Lit for Science!: Lighting the fire for investigation using informational text and vocabulary strategies</i>	Room:	206
Presenter(s):	Katie MacDonald	Vendor:	Vendor
Session Length	50 minutes		
Description:	Foster independence and collaboration with literacy strategies for science students. Walk away with motivating activities you can use to help students make sense of their world.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Patterns

Day:	Thursday	Time:	11:00 AM
Title:	<i>Digging into science literacy with ELA</i>	Room:	211
Presenter(s):	Brenna Moore, Irvin Colbourne	Vendor:	Educator
Session Length	50 minutes		
Description:	Combining Science and ELA for investigative science class.		
Level(s):	Upper Elementary (3-5),Middle (6-8),Supervisor/Leadership,Pre-service/Early Career Teachers; Earth Science	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	11:00 AM
Title:	<i>STEAMing it Up in Elementary: Implementing STEAM and PBL In Grades K-5</i>	Room:	212
Presenter(s):	Natalie Rachel, Pauline Tinch, Tyesha Moore, Aliya Tousana, Ambe Olinga	Vendor:	Educator
Session Length	50 minutes		
Description:	A team of elementary STEAM teachers share strategies for implementing STEAM and Project-Based Learning to build critical thinking skills and positively impact student learning.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	11:00 AM
Title:	<i>Robotics in the K-5 Classroom</i>	Room:	213
Presenter(s):	Kathy Brott and Kelsey Brott	Vendor:	Educator
Session Length	50 minutes		
Description:	Attendees will learn how to incorporate robotics with standards. Participants will be able to try out many robots in order for teachers to find ones that fit their teaching style.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	11:00 AM
Title:	<i>Comfort Zone? High School Science Teachers' Big Leadership Step for other K-12 Teachers</i>	Room:	Sycamore A
Presenter(s):	Tugce Gul	Vendor:	Educator
Session Length	50 minutes		
Description:	The purpose of this study was to examine science teacher leaders' perceptions of their leadership development as they facilitated PD activities for other K-12 teachers.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

THURSDAY- 12:00PM

Day:	Thursday	Time:	12:00 PM
Title:	<i>Edison Robots: Coding in the STEM Classroom</i>	Room:	101
Presenter(s):	Cathy Fontenot, Tammy Nowell, Erin Youmans	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will cover basic coding using Edison Robots and connections in the STEM classroom.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Using Mathematical and Computational	Crosscutting	Cause and Effect: Mechanisms and Explanations
Practices:	Thinking	Concepts:	

Featured Session



Argument Driven Inquiry, Thursday, 12:00pm Room 102

Presenter: Victor Sampson, ADI

Description: Argument-Driven Inquiry started in a science classroom in Phoenix, AZ in 2005. At that time, Vic Sampson was a high school biology and chemistry teacher. He was trying to help his students learn science by doing science. However, he found that all the instructional materials available at that time were too prescriptive, misrepresented how scientists do science, and did not give students an opportunity to learn how to figure things out.

Level: Elementary, Middle, High, College, Administrators, Supervisor/Leadership, Pre-service/Early Career Teachers

Day:	Thursday	Time:	12:00 PM
Title:	<i>Argument-Driven Inquiry</i>	Room:	102
Presenter(s):	Victor Sampson	Vendor:	Educator
Session Length	50 minutes		
Description:	Learn about Argument-Driven Inquiry for Middle School		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Engaging in Argument from Evidence	Crosscutting	Patterns
Practices:		Concepts:	

Day:	Thursday	Time:	12:00 PM
Title:	<i>Elephantquakes! Using smartphones to teach the properties of waves</i>	Room:	103
Presenter(s):	Brian Soash	Vendor:	Other
Session Length	50 minutes		
Description:	Understand the property of waves using a study on elephant and a smart phone app		
Level(s):	Middle (6-8); Physical Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	analyzing and Interpreting Data	Crosscutting	Cause and Effect: Mechanisms and Explanations
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	12:00 PM
Title:	<i>Table Talk: Tales from the APES 2018 FRQ Reading</i>	Room:	Sycamore D
Presenter(s):	Chelsea Sexton	Vendor:	Educator
Session Length	50 minutes		
Description:	Learn what isn't on the rubric and specifically how to grade the 2018 APES Math FRQ #2. General FRQ practice strategies will also be included.		
Level(s):	Advanced High (AP/IB),College; Environmental Science	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	12:00 PM
Title:	<i>Easy Ways to Bring Literacy into the Science Classroom</i>	Room:	202
Presenter(s):	Leigh Anne Borders, Jennifer Venable	Vendor:	Educator
Session Length	50 minutes		
Description:	Are you struggling to find new ways to bring literacy into the Science classroom? Come discover how you can easily fit it in your classroom in ten or minutes or less.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	12:00 PM
Title:	<i>Observation as a Habit of Mind. Have a Lifelong Effect on Your Students by Forever Changing the Way They See the World. Instill Observation Skills as a Habit of Mind Even When Your Schedule Doesn't Allow For a Science Lesson.</i>	Room:	203
Presenter(s):	Tracy Ingram	Vendor:	Educator
Session Length	50 minutes		
Description:	Learn the Fast Five Observation teaching strategy that trains students to think like a scientist wherever they go - and changes their lives forever.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	12:00 PM
Title:	<i>Underrepresented Populations in STEM</i>	Room:	204
Presenter(s):	Jordan Byrd and Jamila Serrette	Vendor:	Educator
Session Length	50 minutes		
Description:	How can educators identify and support students with visible and hidden STEM interests within the underrepresented populations of women and minorities?		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	12:00 PM
Title:	<i>Unlocking the Literacy in Science</i>	Room:	205
Presenter(s):	Melissa Davis, Londie Smith	Vendor:	Educator
Session Length	50 minutes		
Description:	Do you have struggling middle school readers? You will learn how to teach science effectively using nonfiction text when students have reading deficiencies.		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	12:00 PM
Title:	<i>Get Your Game On: Game-Based Learning with Legends of Learning</i>	Room:	206
Presenter(s):	Aryah Fradkin	Vendor:	Vendor
Session Length	50 minutes		
Description:	Come launch cows into outer space using one of our 1,200 legendary science games. Don't forget to don your cape!		
Level(s):	Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	12:00 PM
Title:	<i>Storylines - Explore Phenomenon-Driven Lesson Plans and Assessments</i>	Room:	207
Presenter(s):	Ann Crawley	Vendor:	Vendor
Session Length	50 minutes		
Description:	This session will explore Science A-Z's new Storylines resource - free 2 month trial to Science A-Z will be given		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	12:00 PM
Title:	<i>Broadening the Target: Painting a "3-D Science" Picture for Leaders</i>	Room:	208
Presenter(s):	Charlie Harper	Vendor:	Educator
Session Length	50 minutes		
Description:	Explore useful tips and strategies for training principals about 3-D Science. They don't know what they don't know, and Georgia science educators must change that.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Supervisor/Leadership, Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	12:00 PM
Title:	<i>Out on a STEM? Don't saw it off ... find your way back! An Introduction to Real-World Based Earth Science/Earth Systems Sun Power Curriculum.</i>	Room:	104
Presenter(s):	Judy Cox	Vendor:	Vendor
Session Length	50 minutes		
Description:	Students connect with solar energy through real-world, GSE-based earth science/ earth systems investigations.		
Level(s):	Upper Elementary (3-5), Middle (6-8), High (9-12), College, Supervisor/Leadership, Pre-service/Early Career Teachers; Earth Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	12:00 PM
Title:	<i>Elements and Cells on an Adventure</i>	Room:	211
Presenter(s):	Arlene Burns-Moguel, Ravonda Hardy, Elaine Long	Vendor:	Educator
Session Length	50 minutes		
Description:	Agent Oxygen, Black Wonder, and Jesseca are along on an atomic adventure. Explore cells and atoms, as they take on superhero powers to prove that elements are vital to the human body.		
Level(s):	Middle (6-8); Physical Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	12:00 PM
Title:	<i>STEM All-Day, E'eryday</i>	Room:	212
Presenter(s):	Kahlilah Pagan and Natalie Rachel	Vendor:	Educator
Session Length	50 minutes		
Description:	In this session, you will learn strategies to incorporate real-world STEM and STEAM activities into other subject areas.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Thursday	Time:	12:00 PM
Title:	<i>The Marriage of STEM and PBL Through a Professional Development Partnership</i>	Room:	213
Presenter(s):	Jodi McGavin, Michelle Hurst, Dr. Justin Ballengar, Dr. Cynthia Anderson, Melissa Evans	Vendor:	Educator
Session Length	50 minutes		
Description:	Working with a local university, teachers from an elementary and a middle school have joined together to develop STEM focused projects that promote student learning.		
Level(s):	Lower Elementary (K-2),Middle (6-8),College,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

THURSDAY- 1:00PM

Day:	Thursday	Time:	1:00 PM
Title:	<i>B.I.T.E. Me - Engaging in mosquito research and engineering design</i>	Room:	101
Presenter(s):	Eric Knapp, Guha Gharmarajan	Vendor:	Educator
Session Length	50 minutes		
Description:	B.I.T.E is a community based citizen-science program focused on mosquito research, health advocacy, and engineering design. Participants will explore the impact of vector-borne illness, mosquito trap design, and mosquito population data.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	1:00 PM
Title:	<i>Argument-Driven Inquiry</i>	Room:	102
Presenter(s):	Victor Sampson	Vendor:	Educator
Session Length	50 minutes		
Description:	Introduction to ADI for High School		
Level(s):	High (9-12), Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	1:00 PM
Title:	<i>Designing Trash Collectors in Kindergarten</i>	Room:	103
Presenter(s):	Angela Smith	Vendor:	Vendor
Session Length	50 minutes		
Description:	Teaching engineering skills to kindergartners can be challenging. This session will introduce you to a unit to help teach those skills as students create trash collectors.		
Level(s):	Lower Elementary (K-2); Engineering	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Systems and System Models

Day:	Thursday	Time:	1:00 PM
Title:	<i>S.T.E.M. – An Acronym for All Science Students</i>	Room:	104
Presenter(s):	Gail H Marshall, EdD, Judith R Cox, EdD	Vendor:	Vendor
Session Length	50 minutes		
Description:	Experience creative thinking prompts, questioning and problem-solving skills, investigative design, and S.T.E.M. planning strategies that accentuate the importance of P-12 S.T.E.M. instruction for all students.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8), High (9-12)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	

Day:	Thursday	Time:	1:00 PM
Title:	<i>Reading, Writing, and Science, Oh My!</i>	Room:	202
Presenter(s):	Judith Beccaro	Vendor:	Educator
Session Length	50 minutes		
Description:	Participants will learn how KLEWS, CER, and multimedia text sets can assist with incorporating reading and writing standards in a science class.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	1:00 PM
Title:	<i>Waves - Doing More with Slinkies</i>	Room:	203
Presenter(s):	Taha Mzoughi	Vendor:	Educator
Session Length	50 minutes		
Description:	We will demonstrate how we can use Slinkies to demonstrate the reflection and refraction of waves.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College,Pre-service/Early Career Teachers; Physics	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	1:00 PM
Title:	<i>Problem-Based Learning: From the Real World to Your Classroom</i>	Room:	204
Presenter(s):	Jordan Byrd, Travis Platek	Vendor:	Educator
Session Length	50 minutes		
Description:	Problem-Based Teaching doesn't have to be difficult! Come learn how to implement the model quickly and easily into your current units.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	1:00 PM
Title:	<i>STEM/STEAM with ExploreLearning Gizmos</i>	Room:	205
Presenter(s):	Benjamin Brown	Vendor:	Vendor
Session Length	50 minutes		
Description:	Gizmos are a perfect solution for schools looking for ways to enhance STEM/STEAM curriculum and build 21st century skills for students with interactive labs/simulations.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	1:00 PM
Title:	<i>Launching an Elementary STE(A)M program K-5</i>	Room:	206
Presenter(s):	Kim Stilwell	Vendor:	Vendor
Session Length	50 minutes		
Description:	Need ideas for building an elementary STEM program? Success stories will be shared about how using NSTA resources became part of the foundation to a successful implementation.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	1:00 PM
Title:	<i>How Can You Send a Message With Sound? - STEM Investigations</i>	Room:	209
Presenter(s):	Terri George	Vendor:	Vendor
Session Length	50 minutes		
Description:	How can I send a message using sound? How can I engineer an instrument?		
Level(s):	Lower Elementary (K-2); Engineering	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	1:00 PM
Title:	<i>Using a Nanotechnology Magazine (nanooze.org) to Bring Standards Based Nano Lessons to the Middle School</i>	Room:	210
Presenter(s):	Quinn Spadola	Vendor:	Educator
Session Length	50 minutes		
Description:	Nanooze is a free STEM magazine for middle school students. We will provide examples of activities to help students make connections to real nanotechnology applications.		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:		Crosscutting Concepts:	Scale, Proportion, and Quantity

Day:	Thursday	Time:	1:00 PM
Title:	<i>3D Genetics</i>	Room:	211
Presenter(s):	Ravonda Hardy; Elaine Long; Keidra Carter	Vendor:	Educator
Session Length	50 minutes		
Description:	Presentation of how Genetics can be used with the 3D model and 5 E Model		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB); Biology & Life science	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Thursday	Time:	1:00 PM
Title:	<i>Assessing the Science GSE with Teacher-Created Item Sets</i>	Room:	212
Presenter(s):	Jeremy Peacock and Jennifer Yauck	Vendor:	Educator
Session Length	50 minutes		
Description:	Northeast Georgia RESA's 3D assessment bank provides access to teacher-developed item sets that truly assess 3D learning while also preparing students for the Milestones or district assessments.		
Level(s):	Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	1:00 PM
Title:	<i>Using Academic Language to Enhance Student Understanding</i>	Room:	208
Presenter(s):	Caryn Nelson	Vendor:	Educator
Session Length	50 minutes		
Description:	Using graphic organizers to master academic language and enhance student understanding of difficult concepts in the high school biology classroom.		
Level(s):	High (9-12); Biology/Life Science	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Thursday	Time:	1:00 PM
Title:	<i>Phenomenal Stories!</i>	Room:	213
Presenter(s):	Susanne Smith, Lyssa Sahadevan	Vendor:	Educator
Session Length	50 minutes		
Description:	As scientists and readers, our students must ask and answer meaningful questions. We'll investigate science standards through books our students love!		
Level(s):	Lower Elementary K-2	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

THURSDAY- 2:00PM

Day:	Thursday	Time:	2:00 PM
Title:	<i>Understanding Freshman Adjustment to High School</i>	Room:	101
Presenter(s):	Allison Gladin	Vendor:	Other
Session Length	50 minutes		
Description:	Freshman year is a time of great change and uncertainty. Understanding how students cope with social, academic and home expectations can help educators better enable students to succeed.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Thursday	Time:	2:00 PM
Title:	<i>Argument-Driven Inquiry</i>	Room:	102
Presenter(s):	Victor Sampson	Vendor:	Educator
Session Length	50 minutes		
Description:	Introduction to ADI for Elementary		
Level(s):	Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	patterns

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	2:00 PM
Title:	<i>Catalyzing Empathy into Project-Based Learning & Action</i>	Room:	103
Presenter(s):	Courtney Kimmel, PhD	Vendor:	Vendor
Session Length	50 minutes		
Description:	Project Hero is a free web-based project-based learning platform developed by the Captain Planet Foundation that challenges young learners to accept Quests to help species in trouble.		
Level(s):	Upper Elementary (3-5),Middle (6-8); Biology/LifeScience	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Constructing Explanations and Designing	Crosscutting	Cause and Effect: Mechanisms and Explanations
Practices:	Solutions	Concepts:	

Day:	Thursday	Time:	2:00 PM
Title:	<i>Thanked a Green Plant or Photovoltaic Panel Today?: Availability, Capture, and Transfer of Energy Using the Sun Power for Schools Curriculum</i>	Room:	104
Presenter(s):	Gail H Marshall, EdD	Vendor:	Vendor
Session Length	50 minutes		
Description:	Learn to use GSE- and S.T.E.M.-based explorations that simplify concept-building of Earth's daily and seasonal energy availability, capture, and transfer in physical and living systems		
Level(s):	Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	patterns
Practices:		Concepts:	

Day:	Thursday	Time:	2:00 PM
Title:	<i>Formative Assessment Through Foldables</i>	Room:	202
Presenter(s):	Tanya Flynn	Vendor:	Educator
Session Length	50 minutes		
Description:	We will explore a variety of foldables you can use to quickly assess students. These foldables can be used with or without Interactive Notebooks.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Obtaining, Evaluating, and Communicating	Crosscutting	
Practices:	Information	Concepts:	

Day:	Thursday	Time:	2:00 PM
Title:	<i>Bio-Inspired Design: Using the Living Building to teach STEM Standards in the Life Sciences</i>	Room:	203
Presenter(s):	Sabrina Grossman, Amanda Reding, Ken Kirtland IV	Vendor:	Educator
Session Length	50 minutes		
Description:	What do the Kingfisher and a Bullet train have in common? Find out and learn about Bio-Inspired Design to solve building challenges in the classroom.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Developing and Using Models	Crosscutting	Structure and Function
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	2:00 PM
Title:	<i>Lessons in Literacy Across the Life Sciences</i>	Room:	204
Presenter(s):	Kathrine Thompson	Vendor:	Educator
Session Length	50 minutes		
Description:	This session offers tangible, usable sample lessons meshing literacy and hands on activities, ready for implementation in high school biology and environmental science classrooms.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Engaging in Argument from Evidence	Crosscutting	Stability and Change
Practices:		Concepts:	

Day:	Thursday	Time:	2:00 PM
Title:	<i>Investigating the Use of Individual Student-Nurtured Plant Specimens (ISNPS) as a Tool for the Promotion of Self-Efficacy in the Secondary Science Classroom</i>	Room:	205
Presenter(s):	Lindsay Norcross	Vendor:	Educator
Session Length	50 minutes		
Description:	A plant-based curriculum for educators that can boost self-efficacy, academic ownership, and decrease student absences/tardies.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Presentation
Strand:			
Sci. & Eng.	Developing and Using Models	Crosscutting	Systems and System Models
Practices:		Concepts:	

Day:	Thursday	Time:	2:00 PM
Title:	<i>Bridging STEM and Literacy with Engaging Trade Books: K-5</i>	Room:	206
Presenter(s):	Kim Stilwell	Vendor:	Vendor
Session Length	50 minutes		
Description:	Never before has it been so easy to interest students in reading and science by using Picture-Perfect Science and Eureka! Science Activities and Stories.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Asking Questions and Defining Problems	Crosscutting	patterns
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	2:00 PM
Title:	<i>STEM Bins®: Engineering Through Play</i>	Room:	Sycamore C
Presenter(s):	Carolyn Cutts, Angie Meredith	Vendor:	Vendor
Session Length	50 minutes		
Description:	Discover how to effectively use STEM Bins® as a foundational, developmentally appropriate form of engineering for elementary students.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Supervisor/Leadership; Engineering	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	

Day:	Thursday	Time:	2:00 PM
Title:	<i>Investigating Cell Structure and Function Beyond Paper Exercises</i>	Room:	210
Presenter(s):	Sherri Andrews, Tamica Stubbs	Vendor:	Vendor
Session Length	110 minutes		
Description:	Covering cell structure and function doesn't have to be rote! Come and learn how to teach cellular anatomy/processes via CER and unique lab experiences.		
Level(s):	High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	Structure and Function

Day:	Thursday	Time:	2:00 PM
Title:	<i>Professional Learning Communities: Adding another dimension to Three-Dimensional Science Practices</i>	Room:	211
Presenter(s):	Jennifer Yauck, Jackie Elder, Kelly Strunk, and Paula P. Lemons	Vendor:	Educator
Session Length	110 minutes		
Description:	An interactive session featuring the use of professional learning communities to develop storylines about protein structure, ecology, and genetics.		
Level(s):	High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	Structure and Function

THURSDAY- 3:00PM

Day:	Thursday	Time:	3:00 PM
Title:	<i>Time-Saving Strategies with Science Notebooks</i>	Room:	102
Presenter(s):	Rachel Miller	Vendor:	Vendor
Session Length	50 minutes		
Description:	Notebooking can be a successful way to overcome time-constraints while allowing you to differentiate lessons and promote student organization.		
Level(s):	Upper Elementary (3-5), Middle (6-8), High (9-12)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Structure and Function

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	3:00 PM
Title:	<i>iTeach FORENSICS: Resources to take your Forensics classroom to the next level</i>	Room:	103
Presenter(s):	Dana Niblett	Vendor:	Educator
Session Length	50 minutes		
Description:	Implement an unforgettable Forensics class with resources that will take your Forensics game to the next level-even if you're on a tight budget. (DOOR PRIZES)		
Level(s):	Middle (6-8),High (9-12); Forensic Science	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	

Day:	Thursday	Time:	3:00 PM
Title:	<i>How Much Energy Does It Take to Make A...? Energy in Life Science, Biology, and Environmental Science Using the Sun Power for Schools Curriculum</i>	Room:	104
Presenter(s):	Gail H Marshall, EdD	Vendor:	Vendor
Session Length	50 minutes		
Description:	Explore Energy in Living and Physical Systems: Students Connect Electromagnetic Energy to the Real World While Mastering GSEs Through Investigations in Biological and Environmental Sciences		
Level(s):	Middle (6-8),High (9-12),Pre-service/Early Career Teachers; Biology/Life Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Energy and Matter: Flows, Cycles, and Conservation

Day:	Thursday	Time:	3:00 PM
Title:	<i>BCA Stoichiometry--What is it? Why use it?</i>	Room:	202
Presenter(s):	Dr. Amanda Edwards & Jordan Tidrick	Vendor:	Educator
Session Length	50 minutes		
Description:	Explanation & implementation of BCA (before-change-after) tables used in stoichiometry. Why use it? Research about what it is, how to use it, & teacher experiences implementing.		
Level(s):	High (9-12),Advanced High (AP/IB); Chemistry	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Using Mathematical and Computational Thinking	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	3:00 PM
Title:	<i>Phenomenal Anatomy: Using 3-D Strategies to Engage Students in Anatomy and Physiology</i>		
Presenter(s):	Courtney Stoops	Room:	203
Session Length	50 minutes	Vendor:	Educator
Description:	Explore ways to incorporate 3-D science into the Anatomy and Physiology classroom. You can start NOW to make your class more... phenomenal!		
Level(s):	High (9-12); Human Anatomy & Physiology	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Structure and Function

Day:	Thursday	Time:	3:00 PM
Title:	<i>A Free Interactive Website for Checking the Science Content in K-5 Georgia Science Lessons (BYOD)</i>		
Presenter(s):	Rachel Fiore, Kalil Garrett, Jordan Johnson	Room:	204
Session Length	50 minutes	Vendor:	Educator
Description:	This is a hands-on BYOD session demonstrating a free website built for K-5 teachers to evaluate whether their lesson matches the content of the GSE.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5)	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	3:00 PM
Title:	<i>Science is Lit: Embedding Literacy Practices for Authentic Science Experiences</i>		
Presenter(s):	Jill Lloyd	Room:	205
Session Length	50 minutes	Vendor:	Educator
Description:	Tools to make gains with literacy in High School Biology. Meaningful reading from the textbook, non-fiction book studies, FRQ analysis and ADI.		
Level(s):	High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	3:00 PM
Title:	<i>Assessing Cognitive Load using Physical Models in General Chemistry</i>	Room:	206
Presenter(s):	Jenifer Calvert	Vendor:	Educator
Session Length	50 minutes		
Description:	To model or not to model, that is the question! How effective are modeling activities when trying to improve student understanding of difficult concepts? My research at KSU explores student cognitive load and attempts to answer that very question.		
Level(s):	High (9-12),Advanced High (AP/IB),College; Chemistry	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	analyzing and Interpreting Data	Crosscutting Concepts:	Structure and Function

Day:	Thursday	Time:	3:00 PM
Title:	<i>Enhancing Georgia's Science Curriculum to Promote Our State's Unique Water Story and Challenges</i>	Room:	207
Presenter(s):	Danny Johnson, Sarah Skinner	Vendor:	Other
Session Length	50 minutes		
Description:	Georgia's water story is unique, but many Georgians lack a basic understanding of why or how. Enhancing the science curriculum could be the key.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership; Environmental Science	Type:	Presentation
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	3:00 PM
Title:	<i>Utilizing Question Driven Project- Based Learning Techniques in a Sixth Grade Research Classroom to Promote Abstract Learning that is a Necessary Foundation for Research</i>	Room:	208
Presenter(s):	Monique Ellis	Vendor:	Educator
Session Length	50 minutes		
Description:	Promoting Abstract Learning		
Level(s):	Middle (6-8)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	3:00 PM
Title:	<i>Phenomenal Science</i>	Room:	209
Presenter(s):	Jill Russell	Vendor:	Educator
Session Length	50 minutes		
Description:	Lesson starters that begin with phenomena to engage and excite learners		
Level(s):	Upper Elementary (3-5), Middle (6-8)	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	patterns

Day:	Thursday	Time:	3:00 PM
Title:	<i>Starting Out with STEM in Action</i>	Room:	Sycamore C
Presenter(s):	Carolyn Cutts, Angie Meredith	Vendor:	Vendor
Session Length	50 minutes		
Description:	Learn more about ETA hand2mind's 30 STEM in Action supplemental kits and try one yourself! (door prizes)		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Supervisor/Leadership; Engineering	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	3:00 PM
Title:	<i>Planning for Success with 3 Dimensional Teaching</i>	Room:	213
Presenter(s):	Marion Reeves, Karol Stephens	Vendor:	Educator
Session Length	110 minutes		
Description:	Wish it were easier, more automatic to incorporate all three dimensions- process, cross cutting and content into your GSE learning sequences? This three hour Professional Learning Experience will introduce a systematic way of planning that readily em		
Level(s):	Middle (6-8), High (9-12)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	3:00 PM
Title:	<i>Digging Into Dead Stuff, Details of Decomposition</i>	Room:	Sycamore A
Presenter(s):	Jerry Hightower Penny Hightower	Vendor:	Educator
Session Length	110 minutes		
Description:	Dissect record, sketch, catch, and identify some of the many fascinating organisms that are interacting within a decomposing log.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8), Pre-service/Early Career Teachers; Biology/Life Science	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	3:00 PM
Title:	<i>Literacy for Middle School Science</i>	Room:	Sycamore D
Presenter(s):	Tammy Hyder	Vendor:	Educator
Session Length	50 minutes		
Description:	Activities for incorporating literacy activities into the middle school science program.		
Level(s):	Middle (6-8)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	3:00 PM
Title:	<i>3-D Learning through 5E Investigations</i>	Room:	Sycamore B
Presenter(s):	Kelli York, Donna Governor, Amanda Carter	Vendor:	Educator
Session Length	110 minutes		
Description:	Explore hands-on investigations utilizing the 5E instructional model for 3-D learning. Participate in activities & discover how to integrate the 5E model into your curriculum.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Patterns

THURSDAY- 4:00PM

Day:	Thursday	Time:	4:00 PM
Title:	<i>Is Concept Mapping Making a Difference? Exploring Indicators of Performance Improvements</i>	Room:	102
Presenter(s):	Erin Duckett & Dr. Danilo M. Baylen	Vendor:	Educator
Session Length	50 minutes		
Description:	Reporting on the outcomes of implementing a research project on note taking strategies using concept maps to improve student retention and recall of science concepts and principles.		
Level(s):	Upper Elementary (3-5), Middle (6-8), High (9-12), Advanced High (AP/IB), College, Supervisor/Leadership, Pre-service/Early Career Teachers; Biology/Life Science	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Thursday	Time:	4:00 PM
Title:	<i>Engaging Families In STEM-Sational Learning</i>	Room:	Sycamore C
Presenter(s):	Carolyn Cutts, Angie Meredith	Vendor:	Vendor
Session Length	50 minutes		
Description:	Gearing up for a family night? Looking for ways to introduce STEM to your community? This session uses the engineering design process to engage everyone!		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8), Supervisor/Leadership	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Thursday	Time:	4:00 PM
Title:	<i>Engaging AP Biology Students in Your Animal Behavior Unit</i>	Room:	104
Presenter(s):	Steve Kuninsky	Vendor:	Educator
Session Length	50 minutes		
Description:	Utilize literacy strategies, data analysis, and a personality inventory to engage students with learned/innate behavior, cross-fostering, and twin studies. Resources and activities will be shared.		
Level(s):	High (9-12),Advanced High (AP/IB),Pre-service/Early Career Teachers; Biology/Life Science	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	

Day:	Thursday	Time:	4:00 PM
Title:	<i>When is a picture worth 1000 words? Models & Visual Literacy in Chemistry</i>	Room:	202
Presenter(s):	Dr. Amanda Edwards	Vendor:	Educator
Session Length	50 minutes		
Description:	The GSE call for the use of models in teaching chemistry. This presentation defines a model and explains their uses in class.		
Level(s):	High (9-12),Advanced High (AP/IB); Chemistry	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Thursday	Time:	4:00 PM
Title:	<i>Illuminating 3D science practices: What does it really look like in the classroom?</i>	Room:	203
Presenter(s):	Keith Crandall, Renee Crandall	Vendor:	Educator
Session Length	50 minutes		
Description:	Join us as we expand on how science instruction has changed with the GSE. Check out teacher interviews, videos, and student feedback on the instructional strategies that will spark your passion for 3D science practices!		
Level(s):	Middle (6-8),High (9-12),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:		Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

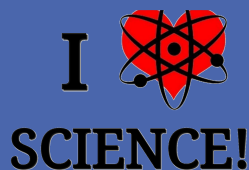
Day:	Thursday	Time:	4:00 PM
Title:	<i>Using Phenomena to Engage Students in Science</i>	Room:	204
Presenter(s):	Desiree Sujoy	Vendor:	Vendor
Session Length	50 minutes		
Description:	By centering science education on phenomena that students are motivated to explain, the focus of learning shifts from learning about a topic to figuring out why or how something happens and connects that learning to the natural world. Come explore!		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	

Day:	Thursday	Time:	4:00 PM
Title:	<i>Evolution 5E</i>	Room:	205
Presenter(s):	Michael A. Kelly	Vendor:	Educator
Session Length	50 minutes		
Description:	Teachers will experience a 5E Evolution lesson focusing on data analysis that can be modified for use in the Life Science or Biology classroom.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Stability and Change

Day:	Thursday	Time:	4:00 PM
Title:	<i>Getting Started with the Claim-Evidence-Reasoning Model</i>	Room:	206
Presenter(s):	Christopher Kennedy, Peter Fischer	Vendor:	Educator
Session Length	50 minutes		
Description:	A rationale and examples of how we utilize the CER Model to promote argumentation from evidence in our science program.		
Level(s):	Middle (6-8),High (9-12)	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	

Day:	Thursday	Time:	4:00 PM
Title:	<i>Making Scientific Argument Amazing</i>	Room:	209
Presenter(s):	Jill Russell	Vendor:	Educator
Session Length	50 minutes		
Description:	Creative ways to address tough and sometimes controversial science topics.		
Level(s):	Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	patterns

2019 GSTA CONFERENCE: I LOVE SCIENCE!!



Conference Sessions - Friday



Session Feedback Surveys - Friday

- Please provide feedback on each session you attend today by following the URL below to access the online feedback form.
- <http://bit.ly/GSTA19Fri>

Featured Session



Storylining for the 3D Classroom, Friday, 10:00AM Room 204

- **Presenter:** Dr. Jason Crean, Kristin Rademaker
- **Description:** This session will review the concept of storylining in order to create coherent, three-dimensional units of study.
- **Level:** Middle (6-8), High (9-12), Advanced High (AP/IB), College, Supervisor/Leadership, Pre-service/Early Career Teachers; Biology/Life Science
- **Strand:** Passionate About Three-Dimensional Science Practices

FRIDAY- 8:00AM

Day:	Friday	Time:	8:00 AM
Title:	<i>Transforming Instruction with Room Transformations</i>	Room:	101
Presenter(s):	Jessica Caldwell	Vendor:	Educator
Session Length	50 minutes		
Description:	Do you need to up engagement in your classroom? Classroom transformations can do that by presenting real world problems in immersive ways. Come find out how to create your own transformation.		
Level(s):	Upper Elementary (3-5), Middle (6-8)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Crosscutting Concepts:		

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	8:00 AM
Title:	<i>Letters to a Pre-Scientist (LPS): A pen pal program between students and real scientists</i>	Room:	103
Presenter(s):	Veronica van Montfrans, Lucy Madden	Vendor:	Other
Session Length	50 minutes		
Description:	Handwriting letters to scientists is research-backed, authentic learning that integrates literacy and science. Learn about LPS and best practices to demystify STEM careers for students.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	8:00 AM
Title:	<i>S(TEAM) That's LIT!</i>	Room:	202
Presenter(s):	Carrie Siegmund	Vendor:	Educator
Session Length	50 minutes		
Description:	Come explore literacy enhanced approaches to engage students in STEAM that's LIT and begin your happily ever after!		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	8:00 AM
Title:	<i>Prescribed Fire in Ecosystem Management - C-E-R Student Investigation</i>	Room:	203
Presenter(s):	Brian McClain, Brian Wiebler	Vendor:	Educator
Session Length	50 minutes		
Description:	Participants will complete a claim-evidence-reasoning lesson centered on the longleaf pine - wiregrass ecosystem. Copies and web links will be provided.		
Level(s):	High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	Stability and Change

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	8:00 AM
Title:	<i>Storylining for the Three-Dimensional Classroom</i>	Room:	204
Presenter(s):	Jason Crean, Kristin Rademaker	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will review the concept of storylining in order to create coherent, three-dimensional units of study.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers; Biology/Life Science	Type:	
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	8:00 AM
Title:	<i>Phenomena-Ily Simulating Science!</i>	Room:	205
Presenter(s):	Nakisha Polite	Vendor:	Vendor
Session Length	50 minutes		
Description:	ExploreLearning Gizmos help teachers take advantage of research-proven instructional strategies and let students of all ability levels develop understanding of natural science occurrences.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	

Day:	Friday	Time:	8:00 AM
Title:	<i>GREAT Project Pathways: a scaffolded 3-D Science approach to PBL</i>	Room:	206
Presenter(s):	Karan Wood, Amanda Buice	Vendor:	Educator
Session Length	110 minutes		
Description:	Explore ways to integrate STEAM with P3BL (project-, phenomenon- and problem-based-learning) in a 3-D-Science approach. The GREAT Project model scaffolds this process with an interactive web-tool.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	8:00 AM
Title:	<i>Become a conservation biologist and help save the giant panda</i>	Room:	207
Presenter(s):	Sherri Andrews, Tamica Stubbs	Vendor:	Vendor
Session Length	110 minutes		
Description:	In this session participants will learn about how pandas became an endangered species and how conservation biology got them removed. They will learn how reproductive biology played a role. ELISA test determines who can mate.		
Level(s):	High (9-12),Advanced High (AP/IB),College; Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Stability and Change

Day:	Friday	Time:	8:00 AM
Title:	<i>STARBASE ROBINS: Inviting passion for STEM to be the driving force for the classroom</i>	Room:	208
Presenter(s):	Wesley Fondal Jr., and Chelsea Robinson	Vendor:	Educator
Session Length	110 minutes		
Description:	This workshop highlights a partnership combating the challenge of engaging math and science delivery with hands-on and rigorous STEM lessons in an off-campus classroom experience.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Friday	Time:	8:00 AM
Title:	<i>The Missing Foundation? Elementary hands-on science as a scaffold for the middle and high school curriculum.</i>	Room:	209
Presenter(s):	William M Brown, Ph.D.	Vendor:	Educator
Session Length	110 minutes		
Description:	Engaging, hands-on discovery activities develop basic science process skills at the elementary level, and provides scaffolding for integrated science process skills at middle/high school levels.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	8:00 AM
Title:	<i>Understanding wine and oil through Spectroscopy</i>	Room:	210
Presenter(s):	Cynthia Knupp	Vendor:	Vendor
Session Length	110 minutes		
Description:	Using spectrometers and data collection probes, participants will analyze many household items including wine and olive oil		
Level(s):	High (9-12),Advanced High (AP/IB),College; Chemistry	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Friday	Time:	8:00 AM
Title:	<i>Connecting Concepts with Sickle Cell & Malaria</i>	Room:	Sycamore D
Presenter(s):	Jennifer Barnes	Vendor:	Vendor/Exhibitor
Session Length	110 minutes		
Description:	Using Sickle Cell & Malaria as an anchoring phenomenon, explore how using free HHMI BioInteractive resources can support 3D instruction.		
Level(s):	High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	analyzing and Interpreting Data	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

FRIDAY- 9:00AM

Day:	Friday	Time:	9:00 AM
Title:	<i>Productively Paperless</i>	Room:	101
Presenter(s):	Christina Hood	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will demonstrate the use of G-Suite, Flipgrid, and Kami to teach standards, support Project-Based Learning, and increase student and teacher productivity and organization.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Structure and Function

Day:	Friday	Time:	9:00 AM
Title:	<i>STEM-ulating Activities on Human Ecology</i>	Room:	102
Presenter(s):	Lauren Johnson	Vendor:	Educator
Session Length	50 minutes		
Description:	Discover innovative ways to teach middle schoolers about human-environmental interactions, while also building STEM skills through problem solving, mathematical modeling, interactive technology and more!		
Level(s):	Middle (6-8); Environmental Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	9:00 AM
Title:	<i>Reading, Writing, and Speaking: Learning Science through Literacy</i>	Room:	103
Presenter(s):	Michael A. Kelly	Vendor:	Educator
Session Length	50 minutes		
Description:	Teachers will experience reading, writing and speaking strategies for use in the science classroom with a focus on non-fiction text, evidence based writing, and collaborative conversations.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	9:00 AM
Title:	<i>Increasing literacy in science in 6th grade</i>	Room:	104
Presenter(s):	Sabina Nell	Vendor:	Educator
Session Length	50 minutes		
Description:	6th grade Science class is a new subject for an upcoming 6th grader. Basic knowledge and literacy are work in progress and the goal is to increase literacy in science.		
Level(s):	Middle (6-8); Earth Science	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	9:00 AM
Title:	<i>Literacy Strategies for Middle and High School Science Classrooms</i>	Room:	202
Presenter(s):	Justin Harvey	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will present several strategies to develop scientific reading skills in your science classroom, focusing on older students.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	9:00 AM
Title:	<i>Legal Precedents Concerning Teaching in the Classroom - A Primer for Teachers</i>	Room:	203
Presenter(s):	Kevin Spingler	Vendor:	Educator
Session Length	50 minutes		
Description:	Learn what legal precedents have been set concerning the teaching of evolution in your classroom.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College; Biology/Life Science	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	

Day:	Friday	Time:	9:00 AM
Title:	<i>Model Storylines: The Africa and Homeostasis Storylines</i>	Room:	204
Presenter(s):	Jason Crean, Kristin Rademaker	Vendor:	Educator
Session Length	50 minutes		
Description:	Model storylines created through a collaboration of practicing teachers will be showcased.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	9:00 AM
Title:	<i>Meet the HudsonAlpha Biotech Guidebook</i>	Room:	205
Presenter(s):	Madelene Loftin	Vendor:	Other
Session Length	50 minutes		
Description:	Want to include cutting-edge genetic discoveries in your class? Meet the HudsonAlpha Guidebook. This free resource is packed with 'too new for textbooks' content, phrased in student friendly language.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College; Biology/Life Science	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	9:00 AM
Title:	<i>Coaching through the GSE in Science</i>	Room:	211
Presenter(s):	Mashawn Duncan-Young, Karin Mason, Tynisha Burnett-Wilson	Vendor:	Educator
Session Length	50 minutes		
Description:	Participants will gain an understanding on the implementation of the GSE in High School. Participants will walk away with the tools to support teachers and gain buy in with the Implementation of the GSE.		
Level(s):	High (9-12)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	9:00 AM
Title:	<i>Genes in Space: design DNA experiments to be done on the International Space Station</i>	Room:	212
Presenter(s):	Bruce Bryan	Vendor:	Vendor
Session Length	50 minutes		
Description:	Join our free science competition. Students submit proposals for genetics experiments to be done in space. We offer classroom resources and free loaner equipment!		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB); Biology & Life science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	

Day:	Friday	Time:	9:00 AM
Title:	<i>The AiMS Project: Tackling difficult biology concepts using an energy model</i>	Room:	213
Presenter(s):	Daniel Capps, Jonathan Shemwell, Mary-Melissa May, Eric Kirk, Jennifer Yauck, Ayca Kara?ahino?lu, Elgin Leary, and Carlson Coogler	Vendor:	Educator
Session Length	110 minutes		
Description:	We present an instructional approach where learners develop an energy model that helps them make sense of challenging science concepts.		
Level(s):	High (9-12),Advanced High (AP/IB); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Energy and Matter: Flows, Cycles, and Conservation

Day:	Friday	Time:	9:00 AM
Title:	<i>Using Mud and Newspaper to Design a Model YES It's 3D!</i>	Room:	Sycamore A
Presenter(s):	Jennifer Jones, Lukisha Redmond	Vendor:	Educator
Session Length	50 minutes		
Description:	Learn how to create and utilize Winogradsky columns in the classroom as a model and phenomena of microbial ecosystems of soil. Learn how to develop inquiry, create labs and demonstrate proof of biochemical interactions		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	9:00 AM
Title:	<i>A Real World Novel Idea</i>	Room:	Sycamore B
Presenter(s):	Hailey Hillsman	Vendor:	Educator
Session Length	110 minutes		
Description:	Learn how to incorporate the reading of novels into your science classroom and improve your students' scientific literacy utilizing real world scenarios.		
Level(s):	High (9-12)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	9:00 AM
Title:	<i>Cell Museum in 3D</i>	Room:	Sycamore C
Presenter(s):	Joe Hart, Mary Duncan, Patsy Hart, Katharina Wade, Dana Turner, & Trina Reaves	Vendor:	Educator
Session Length	50 minutes		
Description:	Create your own cell museum. Interact with organelles in walk-in cells, Student work, cell activities, and games will bring life science alive for your students.		
Level(s):	Upper Elementary (3-5); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Structure and Function

FRIDAY- 10:00AM

Day:	Friday	Time:	10:00 AM
Title:	<i>STEM Connections Through Children's Literature</i>	Room:	101
Presenter(s):	Jenny Hendrix	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will show you how to use children's books to build real-world, interdisciplinary STEM lessons in both the classroom and STEM lab settings.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	

Day:	Friday	Time:	10:00 AM
Title:	<i>TGI (STEM) Friday! Ending the Week with Engagement</i>	Room:	102
Presenter(s):	LaTrina Howell, Karmarroy Twilley	Vendor:	Educator
Session Length	50 minutes		
Description:	Implementing a regular STEM rotation/curriculum for K-2 students. See demonstrations of hands-on activities for primary-age students while building engineering and design thinking, creative exploration, and problem solving.		
Level(s):	Lower Elementary (K-2)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	10:00 AM
Title:	<i>Driving Student Growth with Standards Based Grading</i>	Room:	103
Presenter(s):	Michael A. Kelly	Vendor:	Educator
Session Length	50 minutes		
Description:	Learn how communicating student progress with standards based grading can improve achievement for all learners in science.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Presentation
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	10:00 AM
Title:	<i>Easy 3D: Formative Assessments Strategies for Georgia Milestone Science</i>	Room:	104
Presenter(s):	Danielle Armstrong, Kassidy T Moore	Vendor:	Educator
Session Length	50 minutes		
Description:	In this workshop, teachers will experience how formative assessments are used in 3-Dimensional Science instruction. Educators will walk away with a toolbox of assessment strategies that prepare students for success on the Milestones Assessments.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	10:00 AM
Title:	<i>Sinking Your Teeth into Forces</i>	Room:	202
Presenter(s):	Justin Harvey	Vendor:	Educator
Session Length	50 minutes		
Description:	Can you pull a car with your teeth? An entertaining video engages students in an investigation of forces in order to develop their own arguments for Newton's Laws.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB); Physics	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	patterns

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	10:00 AM
Title:	<i>Micromonsters in the Water - Low Cost Activities for any Classroom</i>	Room:	203
Presenter(s):	Kevin Spingler	Vendor:	Educator
Session Length	50 minutes		
Description:	Come learn how to spark student interest in the plankton in your local body of water with these activities.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB); Biology/Life Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Scale, Proportion, and Quantity

Day:	Friday	Time:	10:00 AM
Title:	<i>Model Storylines: The Melanin, Disease, Penguin, & Dog Storylines</i>	Room:	204
Presenter(s):	Jason Crean, Kristin Rademaker	Vendor:	Educator
Session Length	50 minutes		
Description:	Model storylines created through a collaboration of practicing teachers will be showcased.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers; Biology/Life Science	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	10:00 AM
Title:	<i>Data Driven and Paper Free STEM Integration</i>	Room:	205
Presenter(s):	Stephanie Keyser, Ansley Kaplan, Bethany Horsley	Vendor:	Educator
Session Length	50 minutes		
Description:	Engage and excite students by using real world data to improve presentation, comprehension, and critical thinking skills. We will show you how to have students use web-based and paper-free methods to present and interpret data.		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	analyzing and Interpreting Data	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	10:00 AM
Title:	<i>Schoolyard Adventures in 3-D Science</i>	Room:	206
Presenter(s):	Karan Wood, Amanda Buice	Vendor:	Educator
Session Length	110 minutes		
Description:	Discover how schoolyards offer engaging outdoor labs for 3-Dimensional Science. Experience phenomenon-based lesson frameworks that focus on real-world problem-solving and empower students through project-based learning.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	patterns

Day:	Friday	Time:	10:00 AM
Title:	<i>Engineer your own gel box for three STEM activities</i>	Room:	207
Presenter(s):	Sherri Andrews, Tamica Stubbs	Vendor:	Vendor
Session Length	110 minutes		
Description:	Participants will design and construct a gel electrophoresis system using common house hold materials. They will use their system to separate food dyes, DNA, and pH indicator.		
Level(s):	Middle (6-8),High (9-12),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Asking Questions and Defining Problems	Crosscutting Concepts:	Scale, Proportion, and Quantity

Day:	Friday	Time:	10:00 AM
Title:	<i>STAR...BASE.....: Inviting passion for STEM to be the driving force for the classroom</i>	Room:	208
Presenter(s):	Wesley Fondal Jr., and Chelsea Robinson	Vendor:	Educator
Session Length	110 minutes		
Description:	This workshop highlights a partnership combating the challenge of engaging math and science delivery with hands-on and rigorous STEM lessons in an off-campus classroom experience.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	10:00 AM
Title:	<i>Purr-fect Science Research is Dog-gone Fun</i>	Room:	209
Presenter(s):	Jodi Wheeler-Toppen	Vendor:	Educator
Session Length	50 minutes		
Description:	Students use research to design experiments, engineering tasks, and more. I'll introduce an exciting research cycle for students, using fun examples from two of my recent books on pets.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	10:00 AM
Title:	<i>Quick and Easy - Collecting and Analyzing Data with technology</i>	Room:	210
Presenter(s):	Cynthia Knupp	Vendor:	Vendor
Session Length	50 minutes		
Description:	Participants will use a variety of PASCO Probes to collect and analyze data in the lab		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Friday	Time:	10:00 AM
Title:	<i>National Geographic's Geo-Inquiry Process in Action</i>	Room:	211
Presenter(s):	Carley Lovorn	Vendor:	Educator
Session Length	110 minutes		
Description:	Learn how National Geographic's Geo-Inquiry process can further your student's understanding of the world and empower them to generate solutions that make a difference.		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	asking Questions and Defining Problems	Crosscutting Concepts:	Systems and System Models

Day:	Friday	Time:	10:00 AM
Title:	<i>Investigating sickle cell anemia using gel electrophoresis</i>	Room:	212
Presenter(s):	Bruce Bryan	Vendor:	Vendor
Session Length	50 minutes		
Description:	Use gel electrophoresis to investigate molecular genetics, inheritance and disease. Help a fictional family through a molecular diagnosis with this rich lab activity		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College; Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Structure and Function

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	10:00 AM
Title:	<i>Integrating Science, Statistics, and Literature</i>	Room:	Sycamore A
Presenter(s):	Basil Conway, Deniz Peker	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will provide an opportunity for participants to take part in an activity that integrates an Edgar Allan Poe short story with pendulums and statistics.		
Level(s):	Middle (6-8), High (9-12), College, Pre-service/Early Career Teachers; Physics	Type:	
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Friday	Time:	10:00 AM
Title:	<i>Using Data Points to Improve Science Literacy in the Classroom</i>	Room:	Sycamore D
Presenter(s):	Bob Kuhn	Vendor:	Vendor
Session Length	50 minutes		
Description:	Increase science literacy through HHMI BioInteractive Data Points. Data Points are monthly graphs or figures from scientific journal articles for students to interpret and discuss.		
Level(s):	High (9-12), Advanced High (AP/IB); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Patterns

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

FRIDAY- 11:00AM



GSTA Annual Business Meeting, Friday, 11:00AM Dining Gallery

- **Presenter:** Sarah Ealese, GSTA President
- **Description:** GSTA's President will present the current standing of the organization, as well as the slate of candidate for the 2019 GSTA Board Elections.
- **Level:** Elementary, Middle, High, College, Administrators, Supervisor/Leadership, Pre-service/Early Career Teachers
- **Content:** Advocacy & Leadership

Day:	Friday	Time:	11:00 AM
Title:	<i>How to Use an Online Gaming Platform in a Science Classroom to Improve Student Engagement and Performance</i>	Room:	102
Presenter(s):	Kaitlyn Demirjian, Lauren Kelly, Britton Scott, Rebecca Wells	Vendor:	Educator
Session Length	50 minutes		
Description:	This session outlines successful usage of a gaming platform in 6-12 science classes and guides participants on how to design/setup their own Classcraft platform.		
Level(s):	Upper Elementary (3-5), Middle (6-8), High (9-12), Supervisor/Leadership, Pre-service/Early Career Teachers	Type:	Workshop
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	11:00 AM
Title:	<i>The Genetics of Fingerprints</i>	Room:	103
Presenter(s):	Stephanie Miles	Vendor:	Educator
Session Length	50 minutes		
Description:	Students can use their family's fingerprints to investigate non-Mendelian Genetics		
Level(s):	Middle (6-8), High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Patterns

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	11:00 AM
Title:	<i>KidVentors: Teaching STE(A)M through Invention and Innovation</i>	Room:	104
Presenter(s):	Kathleen Lanman	Vendor:	Educator
Session Length	50 minutes		
Description:	Kids can be amazing inventors when given the tools and opportunity. In this session, I will provide you with methods and motivation for teaching innovation at any age.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12); Engineering	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Structure and Function

Day:	Friday	Time:	11:00 AM
Title:	<i>Citizen Science to the Rescue: Merging Technology with Science</i>	Room:	202
Presenter(s):	Karen Garland	Vendor:	Educator
Session Length	50 minutes		
Description:	Looking for ways to enhance critical thinking, while engaged in indoor and outdoor activities? Join us as we explore what tools and technologies can spark new frontiers in your classroom		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Energy and Matter: Flows, Cycles, and Conservation

Day:	Friday	Time:	11:00 AM
Title:	<i>Making Lessons “Sticky” – Improving Student Retention of Material While Changing Their Mindset</i>	Room:	203
Presenter(s):	Kevin Spingler	Vendor:	Educator
Session Length	50 minutes		
Description:	In this session simple ideas, based on brain research, will assist you in improving your student's memory retention of what you teach.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),College	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	11:00 AM
Title:	<i>STEM/STEAM Connection to Scientific Explanation Framework</i>	Room:	204
Presenter(s):	Dr. Jacquelyn Walton	Vendor:	Vendor
Session Length	50 minutes		
Description:	Scientific Explanation Framework and STEM/STEAM stressing the importance of incorporating science literacy in our daily instructional practices.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership; Physical Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Friday	Time:	11:00 AM
Title:	<i>How to Trick (Scaffold) Your Students into Writing a Fabulous Research Paper</i>	Room:	205
Presenter(s):	Chelsea Sexton	Vendor:	Educator
Session Length	50 minutes		
Description:	Come for sequencing, curriculum resources, and rubrics for manageable steps through the ideation, planning, literature review, data collection, analysis, and communication of original research projects.		
Level(s):	High (9-12),Advanced High (AP/IB),College	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	11:00 AM
Title:	<i>Fantastic Phenomena: How research on the physics and biology of animal motion can drive 3D lessons</i>	Room:	209
Presenter(s):	Andrew Schulz, Alexander Lee, Jodi Wheeler-Toppen	Vendor:	Educator
Session Length	50 minutes		
Description:	Elephant trunk forces. Larvae and aquaponics. Diffusion in the star-nose mole. Learn the science and get GSE-aligned activities based in super-engaging research from GA Tech's Hu Lab.		
Level(s):	Middle (6-8),High (9-12),Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Systems and System Models

Day:	Friday	Time:	11:00 AM
Title:	<i>Designing Better Bumpers</i>	Room:	210
Presenter(s):	Cynthia Knupp	Vendor:	Vendor
Session Length	50 minutes		
Description:	Participants will use "smart carts" and collision data to design better bumpers		
Level(s):	Middle (6-8),High (9-12); Physics	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	analyzing and Interpreting Data	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	11:00 AM
Title:	<i>Glow Labs: A whole new way to investigate DNA structure and enzyme activity</i>	Room:	212
Presenter(s):	Bruce Bryan	Vendor:	Vendor
Session Length	50 minutes		
Description:	A completely new approach to studying both DNA structure and enzyme activity in authentic laboratory investigations. And it glows!		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College; Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Stability and Change

Day:	Friday	Time:	11:00 AM
Title:	<i>Culturally Proficient Teaching Practices to Engage ALL Students in Science</i>	Room:	213
Presenter(s):	Patricia Morgan	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will unpack race, class, and gender and how these experiences shape students' understanding of science and explore students' Funds of Knowledge.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership	Type:	Workshop
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	11:00 AM
Title:	<i>UnBEELievable</i>	Room:	Sycamore B
Presenter(s):	Shannon Petree	Vendor:	Vendor
Session Length	50 minutes		
Description:	Authentic experiences help drive instruction of key biology concepts and skills in the classroom through the use of real-world case studies and hands-on activities to promote deeper understanding of complex biological processes.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Developing and Using Models	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	11:00 AM
Title:	<i>Change Over Time as told by Darwin's Finches</i>	Room:	Sycamore D
Presenter(s):	Jennifer Barnes	Vendor:	Vendor/Exhibitor
Session Length	50 minutes		
Description:	Explore how natural selection, speciation, and evidence for evolution can be told using the story of Darwin's finches.		
Level(s):	High (9-12),Advanced High (AP/IB); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	analyzing and Interpreting Data	Crosscutting Concepts:	Stability and Change

FRIDAY- 12:00PM

Day:	Friday	Time:	12:00 PM
Title:	<i>Safe and Cool Flame Tests and Other Flame-Free Phenomena of Electronic Excitation and Relaxation</i>	Room:	101
Presenter(s):	Renuka Rajasekaran	Vendor:	Educator
Session Length	110 minutes		
Description:	To eliminate the safety risks associated with flame tests and to provide safe and direct lab investigation experience for students in electronic excitation and relaxation phenomena, safe & cool flame tests and flame-free phenomena are presented.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

Day:	Friday	Time:	12:00 PM
Title:	<i>Building Your Foundation From the Ground Up</i>	Room:	102
Presenter(s):	Caitlin Hochuli, Laura Rogers	Vendor:	Educator
Session Length	50 minutes		
Description:	This session is for pre-service or teachers in their first years to share ideas with two teachers who have made it through their first two years.		
Level(s):	Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:		Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	12:00 PM
Title:	<i>Making Science Thinking Visible</i>	Room:	104
Presenter(s):	Sherry Martin	Vendor:	Educator
Session Length	50 minutes		
Description:	When learners speak, write, or draw their ideas, they deepen their cognition. We will explore the six key principles of visible thinking and apply them to Science content		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	12:00 PM
Title:	<i>Making Sense of Physical Phenomenon: UFO Balls and Lodestones as Anchoring Phenomena</i>	Room:	202
Presenter(s):	Jaclyn Murray	Vendor:	Educator
Session Length	50 minutes		
Description:	Anchoring phenomenon as a way to situate an exploration of electricity and magnetism.		
Level(s):	Middle (6-8); Biology/Life Science	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	12:00 PM
Title:	<i>Using Mosquitoes to teach Ecology</i>	Room:	203
Presenter(s):	Jessica Smith	Vendor:	Educator
Session Length	50 minutes		
Description:	Engage students by bringing mosquitoes "into" your classroom.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	analyzing and Interpreting Data	Crosscutting Concepts:	stability and Change

Day:	Friday	Time:	12:00 PM
Title:	<i>Reading, Writing, & Reasoning in the School Yard</i>	Room:	204
Presenter(s):	Dr. Steve Rich	Vendor:	Educator
Session Length	50 minutes		
Description:	Journals, notebooks, and trade books are featured in outdoor science lessons—with indoor options. Use work samples and kids' books to learn how. Free seeds.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	12:00 PM
Title:	<i>Coding & Rovers</i>	Room:	205
Presenter(s):	Terra McMillan	Vendor:	Educator
Session Length	50 minutes		
Description:	Using 21st century technology skills to teach real world application of the rock cycle		
Level(s):	Middle (6-8); Earth Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Energy and Matter: Flows, Cycles, and Conservation

Day:	Friday	Time:	12:00 PM
Title:	<i>3-D Science in the Schoolyard</i>	Room:	206
Presenter(s):	Karan Wood; Amanda Buice;	Vendor:	Educator
Session Length	110 minutes		
Description:	Up your 3-D Science game by learning about perils, pitfalls, and successes of effective professional learning workshops, from facilitators who lived to tell the tale.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8), High (9-12), Advanced High (AP/IB), Supervisor/Leadership, Pre-service/Early Career Teachers	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

Day:	Friday	Time:	12:00 PM
Title:	<i>Explore, Examine, & Transform through Virtual Expeditions and Interactive Lessons</i>	Room:	207
Presenter(s):	Quinae G. Jackson	Vendor:	Vendor
Session Length	50 minutes		
Description:	Engage in a Nearpod lesson designed to explore the features of Nearpod which will increase engagement, collaboration, critical thinking and creativity in their classrooms.		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	12:00 PM
Title:	<i>Getting your head into NGSS and 3-Dimensional Learning</i>	Room:	208
Presenter(s):	Cassie Whitecotton	Vendor:	Vendor
Session Length	110 minutes		
Description:	Innovative lessons on implementing the 3-D Learning model, the CCC's and DCI's.		
Level(s):	High (9-12), Advanced High (AP/IB); Physical Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	12:00 PM
Title:	<i>Student?Focused, Inquiry Activities for Physics and Physical Science</i>	Room:	209
Presenter(s):	Peter Fischer, Christopher Kennedy, Elizabeth Downey	Vendor:	Educator
Session Length	110 minutes		
Description:	A discussion of the process we use to develop student?focused, inquiry activities with an opportunity to experience several sample activities for physics/physical science.		
Level(s):	Middle (6-8),High (9-12); Physical Science	Type:	Workshop
Strand:			
Sci. & Eng. Practices:	analyzing and Interpreting Data	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Friday	Time:	12:00 PM
Title:	<i>1:1, now what? Technology in the Science Classroom</i>	Room:	210
Presenter(s):	Kristen Butera	Vendor:	Educator
Session Length	50 minutes		
Description:	Improve student learning and engagement through technology		
Level(s):	Middle (6-8); Biology/Life Science	Type:	Presentation
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	12:00 PM
Title:	<i>Become a National Geographic Certified Educator</i>	Room:	211
Presenter(s):	Carley Lovorn	Vendor:	Educator
Session Length	50 minutes		
Description:	In this interactive session, educators will discuss teaching science with a global perspective. Complete Phase 1 of certification in this session, diving into our Learning Framework with resources that will fit into your planned curriculum.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Systems and System Models

Day:	Friday	Time:	12:00 PM
Title:	<i>miniPCR Forensics Lab: An authentic DNA investigation using your own students' DNA</i>	Room:	212
Presenter(s):	Bruce Bryan	Vendor:	Vendor
Session Length	50 minutes		
Description:	Learn how your students can use their DNA and modern biotechnology techniques to investigate whether they can rule themselves out as a suspect.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Stability and Change

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	12:00 PM
Title:	<i>The How and Why of ADI</i>	Room:	213
Presenter(s):	Sarah Lasiter and Taran Swanson	Vendor:	Educator
Session Length	110 minutes		
Description:	Implementing ADI in the middle school classroom		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect: Mechanisms and Explanations

Day:	Friday	Time:	12:00 PM
Title:	<i>STEM for One, STEM for All</i>	Room:	Sycamore B
Presenter(s):	Pamela W. Inabinett	Vendor:	Vendor
Session Length	50 minutes		
Description:	Come learn about all the amazing STEM resources Discovery Education has to offer.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8), High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	

Day:	Friday	Time:	12:00 PM
Title:	<i>Google Hyperdocs: How to Increase Student Engagement, Retention, and Rigor</i>	Room:	Sycamore C
Presenter(s):	Michele Langhans, Wanda Rice, and Helon Sneed	Vendor:	Educator
Session Length	110 minutes		
Description:	You will learn how to use Hyperdocs to increase student engagement, retention, and rigor in a technological world.		
Level(s):	Middle (6-8), High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

FRIDAY- 1:00PM

Day:	Friday	Time:	1:00 PM
Title:	<i>Sense-ational Science with the Science Twins</i>	Room:	102
Presenter(s):	Donita Legoas and Kristina Istre	Vendor:	Educator
Session Length	50 minutes		
Description:	Cheap and easy ways to integrate science investigations in your class.		
Level(s):	Upper Elementary (3-5), Middle (6-8)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	1:00 PM
Title:	<i>Literacy in STEM</i>	Room:	104
Presenter(s):	Sherry Martin	Vendor:	Educator
Session Length	50 minutes		
Description:	Join us for engaging model lessons combining the engagement of picture books with standards-based science content and STEM connections.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Developing and Using Models	Crosscutting	Structure and Function
Practices:		Concepts:	

Day:	Friday	Time:	1:00 PM
Title:	<i>Telling the Story(line)s of High School Biology</i>	Room:	202
Presenter(s):	Jeremy Peacock	Vendor:	Educator
Session Length	110 minutes		
Description:	Get resources and perspectives from a full-course pilot of teacher-developed 3D storylines for high school biology.		
Level(s):	High (9-12); Biology/Life Science	Type:	Workshop
Strand:			
Sci. & Eng.		Crosscutting	
Practices:		Concepts:	

Day:	Friday	Time:	1:00 PM
Title:	<i>A Phenomenal Experience: Fiction & NonFiction Books in the Science Classroom</i>	Room:	203
Presenter(s):	Heidi Goodin, Lynn Larsen	Vendor:	Educator
Session Length	50 minutes		
Description:	Integrate fiction and nonfiction literature into science classrooms through encompassing literacy strategies and hands-on science. Use the 5 E method to reach all learners.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	Cause and Effect
Practices:		Concepts:	

Day:	Friday	Time:	1:00 PM
Title:	<i>Citizen Science: Collaboration that authenticates scientific practice</i>	Room:	204
Presenter(s):	Regina Collins, Britt Gantt, Lacey Huffling	Vendor:	Educator
Session Length	50 minutes		
Description:	Three levels of science educators will discuss how to use citizen science to infuse engagement into your science classroom while also providing access to authentic content for students.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Obtaining, Evaluating, and Communicating	Crosscutting	Energy and Matter
Practices:	Information	Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	1:00 PM
Title:	<i>Free Resources from HudsonAlpha</i>	Room:	205
Presenter(s):	Jennifer Hutchison	Vendor:	Other
Session Length	50 minutes		
Description:	See the free resources available from HudsonAlpha Institute for Biotechnology, including classroom-tested activities. BYOD and get biotech ideas for your 1:1 classroom.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College;Biology/Life Science	Type:	Presentation
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	1:00 PM
Title:	<i>Demystifying STEM: Earthquake Proof Towers and Engineering Design</i>	Room:	207
Presenter(s):	Valerie Sellers	Vendor:	Vendor
Session Length	50 minutes		
Description:	Investigations, models, simulations, and tower engineering will demystify the 3D NGSS standards for waves, the practices of engineering design, and how to teach them through STEM.		
Level(s):	Upper Elementary (3-5),Middle (6-8),Pre-service/Early Career Teachers; Earth Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Patterns

Day:	Friday	Time:	1:00 PM
Title:	<i>Moving from Learning to Read and Write to Reading and Writing to Learn: Literacy Strategies in the Science Classroom</i>	Room:	210
Presenter(s):	Wendy Johnson	Vendor:	Vendor
Session Length	50 minutes		
Description:	Experience a lesson from Investigating and Questioning our World through Science and Technology (IQWST®) that draws on the most recent research on literacy learning in the context of science.		
Level(s):	Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Energy and Matter

Day:	Friday	Time:	1:00 PM
Title:	<i>Love the Ocean? Be a Teacher at Sea!</i>	Room:	212
Presenter(s):	Taylor Planz	Vendor:	Educator
Session Length	50 minutes		
Description:	Come learn about the NOAA Teacher at Sea program and how you can engage in real-world research at sea on a NOAA vessel!		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),College	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Sci. & Eng.
Practices:

Crosscutting
Concepts:

Day:	Friday	Time:	1:00 PM
Title:	<i>Elementary School Share-A-Thon</i>	Room:	Sycamore B
Presenter(s):		Vendor:	
Session Length			
Description:			
Level(s):		Type:	
Strand:			
Sci. & Eng.		Crosscutting	
Practices:		Concepts:	
Day:	Friday	Time:	1:00 PM
Title:	<i>Exploring Ecosystem Regulation Through Trophic Cascades</i>	Room:	Sycamore D
Presenter(s):	Bob Kuhn	Vendor:	Vendor
Session Length	110 minutes		
Description:	Learn about the top down ecosystem regulation model through a rich storyline of trophic cascades using HHMI BioInteractive resources.		
Level(s):	High (9-12); Biology/Life Science	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Developing and Using Models	Crosscutting	Cause and Effect
Practices:		Concepts:	

FRIDAY- 2:00PM

Featured Session



Science Changes and Updates, Friday, 2:00PM Room 102

- **Presenters:** Amanda Buice & Keith Crandall, Georgia DOE
- **Description:** Curious about what is on the horizon for assessment, 4th science courses, and resources? Then join us for an update from GaDOE's science team.
- **Level:** Elementary, Middle, High, College, Administrators, Supervisor/Leadership, Pre-service/Early Career Teachers
- **Content:** Advocacy & Leadership

Day:	Friday	Time:	2:00 PM
Title:	<i>Quit Teaching! Start Facilitating! (A guide to implementing and managing a student directed classroom)</i>	Room:	101
Presenter(s):	Dana Niblett, Krista Buchanan	Vendor:	Educator
Session Length	50 minutes		
Description:	Increase student participation, motivation and achievement by creating a classroom environment that's STUDENT CENTERED. We will provide you with TONS of resources, ideas and strategies- DOOR PRIZES!		

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Level(s):	Middle (6-8),High (9-12)	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	2:00 PM
Title:	<i>Updates from GaDOE</i>	Room:	102
Presenter(s):	Amanda Buice, Keith Crandall	Vendor:	Other
Session Length	50 minutes		
Description:	Curious about what is on the horizon for assessment, 4th science courses, and resources? Then join us for an update from GaDOE's science team.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	2:00 PM
Title:	<i>An Introduction to the NSF revision of the American's Lab Report: Science and Engineering for Grades 6-12: Investigation and Design at the Center</i>	Room:	103
Presenter(s):	Juan-Carlos Aguilar	Vendor:	Educator
Session Length	50 minutes		
Description:	This presentation will provide the audience with an overview of the National Academies of Science, Engineering, and Medicine review of the American's Lab report		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	2:00 PM
Title:	<i>Staging Family Science Nights</i>	Room:	104
Presenter(s):	Donna Governor, Amanda Carter, Kelli York	Vendor:	Educator
Session Length	50 minutes		
Description:	Plan & present successful Family Science Nights, including how to use older students to host at elementary schools. From the authors of NSTA Press book.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	2:00 PM
Title:	<i>Using Ms. Frizzle to Make Science Fun</i>	Room:	203
Presenter(s):	Heidi Goodin, Lynn Larsen	Vendor:	Educator
Session Length	50 minutes		
Description:	Use The Magic School Bus books to delve into science concepts through hands-on fun activities. Phenomena and 3D science will be incorporated into the session to develop a deeper understanding of the science concept.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	Cause and Effect
Practices:		Concepts:	

Day:	Friday	Time:	2:00 PM
Title:	<i>How a teacher used reading combined text genres to influence meaning construction in science</i>	Room:	204
Presenter(s):	Mesa B. Davis, Ph.D. and Danise Fields, M.Ed.	Vendor:	Educator
Session Length	50 minutes		
Description:	This presentation addresses ways that a teacher can use a combination of text genres to scaffold the understanding of scientific practices.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Analyzing and Interpreting Data	Crosscutting	
Practices:		Concepts:	

Day:	Friday	Time:	2:00 PM
Title:	<i>Cancer Questions to Drive Data Analysis</i>	Room:	205
Presenter(s):	Madelene Loftin	Vendor:	Other
Session Length	50 minutes		
Description:	Learn how DNA sequencing technologies are changing the way researchers at HudsonAlpha Institute ask and answer questions about cancer. Sample data for student analysis is included.		
Level(s):	High (9-12),Advanced High (AP/IB); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng.	Analyzing and Interpreting Data	Crosscutting	Cause and Effect
Practices:		Concepts:	

Day:	Friday	Time:	2:00 PM
Title:	<i>Strategies for 1 to 1 Technology in the Science Classroom</i>	Room:	206
Presenter(s):	Jenny Scoggins	Vendor:	Educator
Session Length	50 minutes		
Description:	We will review and share ideas for the use of 1 to 1 technology in the science classroom.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12)	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Asking Questions and Defining Problems	Crosscutting	
Practices:		Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	2:00 PM
Title:	<i>Demystifying 3D NGSS and STEM Literacy Using the Phenomenon of Light</i>	Room:	207
Presenter(s):	Valerie Sellers	Vendor:	Vendor
Session Length	50 minutes		
Description:	Making scientific text meaningful, engaging, and accessible to all learners can be done through STEM Literacy Strategies. Connecting it to hands-on learning first is key.		
Level(s):	Upper Elementary (3-5), Middle (6-8), High (9-12), Pre-service/Early Career Teachers; Physical Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Patterns

Day:	Friday	Time:	2:00 PM
Title:	<i>Sweet and Salty Investigations with a 3-D Twist!</i>	Room:	208
Presenter(s):	Cassie Whitecotton	Vendor:	Vendor
Session Length	110 minutes		
Description:	DCI, CCC, and SEPs have got nothing on you! Engage in an exciting hands-on lesson that creates some sweet science!		
Level(s):	Middle (6-8), High (9-12), Advanced High (AP/IB); Physical Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	Cause and Effect

Day:	Friday	Time:	2:00 PM
Title:	<i>Teaching on a Dime</i>	Room:	210
Presenter(s):	Kahlilah Pagan, Kiana Pinckney	Vendor:	Educator
Session Length	50 minutes		
Description:	Teaching with limited time and funds.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	2:00 PM
Title:	<i>Pegasus: Flying with a Little Help From my Friends</i>	Room:	211
Presenter(s):	Belynda Songer	Vendor:	Educator
Session Length	110 minutes		
Description:	K-5 NASA LSP story about the Pegasus rocket		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5); Earth Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Systems and System Models

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	2:00 PM
Title:	<i>The How and Why of ADI</i>	Room:	213
Presenter(s):	Taran Swanson, Sarah Lasiter	Vendor:	Educator
Session Length	110 minutes		
Description:	Implementing ADI in the middle school classroom		
Level(s):	Middle (6-8)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect

Day:	Friday	Time:	2:00 PM
Title:	<i>Engaging Students Through Nearpod Presentation Software with an Emphasis on Literacy Enhancement</i>	Room:	Sycamore A
Presenter(s):	Matt Taylor, Belinda Rozar, Mandy Hutto	Vendor:	Educator
Session Length	50 minutes		
Description:	Participants will be exposed to Nearpod Presentation Software that will provide an interactive learning session embedded with instant data feedback, virtual reality field trips, and more!		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8), High (9-12), College	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	2:00 PM
Title:	<i>Middle School Share-A-Thon</i>	Room:	Sycamore B
Presenter(s):		Vendor:	
Session Length			
Description:			
Level(s):		Type:	
Strand:			
Sci. & Eng.		Crosscutting Concepts:	

Day:	Friday	Time:	2:00 PM
Title:	<i>Density is Phenomenal - A 3D approach to Matter</i>	Room:	Sycamore C
Presenter(s):	Terri George	Vendor:	Vendor
Session Length	50 minutes		
Description:	Come to a hands-on workshop to participate in multiple lessons on density that begins with a phenomena. Through 3D lessons, the misconceptions about density can be cleared up.		
Level(s):	Middle (6-8); Physical Science	Type:	workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting Concepts:	Energy and Matter

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

FRIDAY- 3:00PM

Day:	Friday	Time:	3:00 PM
Title:	<i>Argument Driven Inquiry (ADI) in the Elementary Classroom</i>	Room:	101
Presenter(s):	Yolanda A White, Tiffany Christian, Brittany Rhea-Neely	Vendor:	Educator
Session Length	50 minutes		
Description:	Educators will receive an overview and insight on what ADI looks like in the elementary classroom.		
Level(s):	Upper Elementary (3-5)	Type:	workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	3:00 PM
Title:	<i>Using Literacy Strategies to Deepen Science Understanding</i>	Room:	102
Presenter(s):	Marion Reeves	Vendor:	Educator
Session Length	50 minutes		
Description:	Venn diagrams, concept maps, and other strategies are often used for vocabulary development. Learn to modify these to support deeper science conceptual understanding.		
Level(s):	Middle (6-8),High (9-12)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	3:00 PM
Title:	<i>Presidential Award for Excellence in Mathematics and Science Teaching</i>	Room:	103
Presenter(s):	Juan-Carlos Aguilar and Amanda Buice	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will provide guidance on the application process for the Presidential Award for Excellence in Mathematics and Science Teaching.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),Supervisor/Leadership	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Crosscutting Concepts:		

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	3:00 PM
Title:	<i>Creating an Engineering Mind Through Inquiry-Based Labs with GPB's Physics in Motion</i>	Room:	104
Presenter(s):	Katie Lowrie, Tracey Wiley	Vendor:	Educator
Session Length	50 minutes		
Description:	Physics in Motion is Georgia Public Broadcasting's new digital series for high school. It was developed by a team of certified educators and uses video demonstrations and 3-dimensional tasks help students apply knowledge and think more like engineers		
Level(s):	High (9-12),Advanced High (AP/IB),Supervisor/Leadership,Pre-service/Early Career Teachers; Physics	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	Cause and Effect

Day:	Friday	Time:	3:00 PM
Title:	<i>Optical Engineering</i>	Room:	202
Presenter(s):	Sharon Kirby, David Todd, Ann Robinson	Vendor:	Educator
Session Length	110 minutes		
Description:	Optical technology and careers in optical engineering will be presented using hands-on activities linking optics to real world experiences.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Pre-service/Early Career Teachers; Physics	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect

Day:	Friday	Time:	3:00 PM
Title:	<i>GYSTC 30 Years of Making STEM Relevant</i>	Room:	203
Presenter(s):	Lynn Larsen, Aubrey Crook, Thomas Brown, Heidi Goodin, Bob Young, Erin Youmans, Will Dodd, Tammy Newell, Cathy Fontenot, Terry Wetherington	Vendor:	Educator
Session Length	110 minutes		
Description:	GYSTC will present a "Then & Now" STEM based activity session. Come see 10 different activities that focus on STEM of "Then" and "Now".		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Structure and Function

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	3:00 PM
Title:	<i>Stop! In the Name of Love for Assessment</i>	Room:	204
Presenter(s):	Heather Cowart, Miranda Simmons, Lindsey Thomas	Vendor:	Educator
Session Length	50 minutes		
Description:	Assessments can be used to foster student ownership. Join us to receive resources for using assessment to guide student driven instruction and love for learning.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),Supervisor/Leadership	Type:	Presentation
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	3:00 PM
Title:	<i>Strengthening Scientific Understanding Through Interactive Literacy With Georgia Forests Virtual Learning Journey</i>	Room:	205
Presenter(s):	Kina Hudson, Courtney Bryant, Laura Evans	Vendor:	Educator
Session Length	50 minutes		
Description:	Take your students on an interactive journey through the working forests of Georgia to learn about forest ecosystems, food webs, and life cycles, as well as forestry management processes, career opportunities, and much more.		
Level(s):	Upper Elementary (3-5),Middle (6-8); Biology/LifeScience	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Energy and Matter

Day:	Friday	Time:	3:00 PM
Title:	<i>Integrating Literacy Strategies into Science Instruction</i>	Room:	206
Presenter(s):	Jenny Scoggins	Vendor:	Educator
Session Length	50 minutes		
Description:	We will explore literacy strategies in the science classroom like paraphrasing, summarizing, read-alouds, and vocabulary		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	3:00 PM
Title:	<i>Changing Classroom Practice and Student Achievement Through STEM</i>	Room:	207
Presenter(s):	Valerie Sellers	Vendor:	Vendor
Session Length	50 minutes		
Description:	STEM Teacher Actions are high impact, purposeful, and effective; Engaging and evidence-based. Learn these while gaining a STEM Teacher Certificate.		
Level(s):	Upper Elementary (3-5),Middle (6-8),High (9-12),Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	3:00 PM
Title:	<i>1...2...3...Innovate!</i>	Room:	208
Presenter(s):	Cassie Whitecotton	Vendor:	Vendor
Session Length	50 minutes		
Description:	Engage and discover STEM activities that easy to implement in the classroom using TI Technology		
Level(s):	Middle (6-8),High (9-12); Engineering	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Cause and Effect

Day:	Friday	Time:	3:00 PM
Title:	<i>Bundling Biology and Physical Science Standards</i>	Room:	209
Presenter(s):	Dr. Michael Seckinger	Vendor:	Educator
Session Length	50 minutes		
Description:	Presentation will discuss our district's efforts curriculum bundling efforts.		
Level(s):	Middle (6-8),High (9-12); Biology/Life Science	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Cause and Effect

Day:	Friday	Time:	3:00 PM
Title:	<i>Addressing the Real-world Relevance of Evolution</i>	Room:	210
Presenter(s):	Patti Howell	Vendor:	Educator
Session Length	110 minutes		
Description:	Start your evolution lessons with examples students can relate to. We will share free lessons, slides, and a website full of high-quality classroom resources.		
Level(s):	Middle (6-8); Biology/Life Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Patterns

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	3:00 PM
Title:	<i>High School Share-A-Thon</i>	Room:	Sycamore B
Presenter(s):		Vendor:	
Session Length			
Description:			
Level(s):		Type:	
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	3:00 PM
Title:	<i>An Engaging and Exciting Approach to Exploring Mass Extinctions Using HHMI BioInteractive's Earthviewer</i>	Room:	Sycamore D
Presenter(s):	Tim Guilfoyle	Vendor:	Educator
Session Length	50 minutes		
Description:	Explore a data-rich interactive that engages students to discover changes in Earth's environmental factors that may have contributed and caused the mass extinctions using free resources from HHMI's BioInteractive suitable for all levels of science.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB); Earth Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Cause and effect

FRIDAY- 4:00PM

Day:	Friday	Time:	4:00 PM
Title:	<i>Big Kids Teaching Little Kids Science</i>	Room:	101
Presenter(s):	Dana Niblett, Janet Hodges, Amy Howard, Donna Brewer	Vendor:	Educator
Session Length	50 minutes		
Description:	Foster a LOVE for Science in your K-5 classrooms by partnering with your local high school. Learn how to implement a successful Big Kids Teaching Little Kids program. (DOOR PRIZES)		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),High (9-12)	Type:	Presentation
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Friday	Time:	4:00 PM
Title:	<i>Obtain, evaluate, and communicate! Reading and Writing in Science - The Perfect Combination</i>	Room:	103
Presenter(s):	Amanda Buice, Jodi Wheeler-Toppen	Vendor:	Educator
Session Length	50 minutes		
Description:	GaDOE has partnered with Ga Author to create reading, writing and science videos.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8)	Type:	Presentation
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluation, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	4:00 PM
Title:	<i>Bridging the Gap: Informal Learning to Formal Education</i>	Room:	104
Presenter(s):	Kania Greer	Vendor:	Educator
Session Length	50 minutes		
Description:	Using techniques from informal learning to engage formal education.		
Level(s):	Upper Elementary (3-5),Middle (6-8),Advanced High (AP/IB),College,Supervisor/Leadership,Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	4:00 PM
Title:	<i>Roses are Red, Violets are Blue, We Love CLOSE Reading, and You Will Too!</i>	Room:	204
Presenter(s):	Heather Cowart, Miranda Simmons, Lindsey Thomas	Vendor:	Educator
Session Length	50 minutes		
Description:	Did you know that many students don't like to read? Let's change that! Receive CLOSE reading strategies for engaging students into reading, templates, and prizes.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB),Supervisor/Leadership	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluation, and Communicating Information	Crosscutting Concepts:	

Day:	Friday	Time:	4:00 PM
Title:	<i>Linking Literacy and Science Across the Elementary Grades</i>	Room:	205
Presenter(s):	Patricia Moody, Rebecca Wooden	Vendor:	Educator
Session Length	50 minutes		
Description:	In this session, participants will find new activities that tie science and literacy together to change STEAM to STREAM.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Crosscutting Concepts:		

Day:	Friday	Time:	4:00 PM
Title:	<i>Easy ways to implement technology in your elementary science class</i>	Room:	206
Presenter(s):	Melany Bracking	Vendor:	Educator
Session Length	50 minutes		
Description:	Quick and easy resources for the elementary class.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluation, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Friday	Time:	4:00 PM
Title:	<i>Teaching Ecosystem Services Using Small Group Strategies in the Classroom</i>	Room:	209
Presenter(s):	Brian McClain, Brian Wiebler	Vendor:	Educator
Session Length	50 minutes		
Description:	Participants will work in two groupings to become advocates for and prioritize longleaf pine ecosystem services.		
Level(s):	High (9-12), College; Environmental Science	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	Energy and Matter

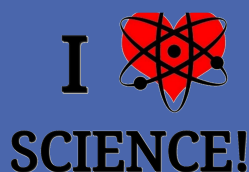
Day:	Friday	Time:	4:00 PM
Title:	<i>Model-Evidence-Link Diagrams: Promoting Critique, Evaluation, and Argument in Earth & Environmental Science</i>	Room:	211
Presenter(s):	Donna Governor, Kristina Strickland	Vendor:	Educator
Session Length	50 minutes		
Description:	This session will feature instructional scaffolds for Earth/Environmental science topics that help students critically evaluate connections between evidence and alternative scientific explanations.		
Level(s):	Middle (6-8), High (9-12), Advanced High (AP/IB); Earth Science	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Engaging in Argument from Evidence	Crosscutting Concepts:	Cause and Effect

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

THE FOLLOWING EXHIBITORS PROVIDED DOORPRIZES FOR OUR GIVEAWAY ON FRIDAY AT 5:00 P.M. PLEASE STOP BY AND THANK THEM!!

Activate Learning	Georgia Mineral Society, Inc.	Legends of Learning
Bedford, Freeman and Worth	Georgia Projects	NJS Fashion Handbags
Bio-Rad	Georgia Public Broadcasting	NSTA
Capital Microscope Services, Inc	Georgia Science Teachers Association	PASCO Scientific
Chick-fil-A College Football Hall of Fame	Georgia Southern University	Piedmont College
Columbus State University	Georgia State Parks and Historic Sites	School Materials Network/Dodge Learning Resources
CSU's Coca-Cola Space Science Center	georgiarocks.us and National Association of Geoscience Teachers	Science Friday
Environmental Education Alliance of Georgia	Green Power EMC	SENIC/GA Tech
ExploreLearning	hand2mind	SmartSchool Systems
Flinn Scientific	HIGH TOUCH HIGH TECH OF GREATER ATLANTA	The EDMAT Company
Forestry Suppliers, Inc.	HudsonAlpha Institute for Biotechnology	Tybee Island Marine Science Center
Geoblox	LearnEd Notebooks	Vernier Software & Technology
Georgia Aquarium Inc	Learning A-Z	Ward's Science/Sargent Welch
Georgia Envirothon		Wild Adventures Theme Park
		Zoo Atlanta

2019 GSTA CONFERENCE: I LOVE SCIENCE!!



Conference Sessions - Saturday



Session Feedback Surveys - Saturday

- Please provide feedback on each session you attend today by following the URL below to access the online feedback form.
- <http://bit.ly/GSTA19Sat>

SATURDAY- 8:00AM

Day:	Saturday	Time:	8:00 AM
Title:	<i>Engineering Measurement</i>	Room:	101
Presenter(s):	Mary Kay Bacallao	Vendor:	Educator
Session Length	50 minutes		
Description:	How to use engineering and math to build units.		
Level(s):	Upper Elementary (3-5); Engineering	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Using Mathematical and Computational Thinking	Crosscutting Concepts:	Scale, Proportion, and Quantity

Day:	Saturday	Time:	8:00 AM
Title:	<i>Place-Based Education: Using Community Resources to Increase Student Awareness of Applied Science</i>	Room:	102
Presenter(s):	Andrew Mays	Vendor:	Educator
Session Length	50 minutes		
Description:	How to use the resources available in your local community to improve the science education of your students while demonstrating the relevance of science education		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5), Middle (6-8), High (9-12), Advanced High (AP/IB), College, Supervisor/Leadership, Pre-service/Early Career Teachers	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Obtaining, Evaluation, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Saturday	Time:	8:00 AM
Title:	<i>Making C-E-R FUN</i>	Room:	103
Presenter(s):	Mesa B. Davis, Ph.D.	Vendor:	Educator
Session Length	50 minutes		
Description:	This session focuses on fun, successful ways to introduce students to argumentation through the Claim-Evidence-Reasoning Framework. These take-away activities are student tested and approved!		
Level(s):	Middle (6-8),High (9-12),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng.	Obtaining, Evaluation, and Communicating	Crosscutting	
Practices:	Information	Concepts:	

Day:	Saturday	Time:	8:00 AM
Title:	<i>Sweating Alcohol in 3-D!</i>	Room:	104
Presenter(s):	Jeff Lukens	Vendor:	Educator
Session Length	50 minutes		
Description:	Don't sweat the small stuff? Well, 3-D teaching and learning are "The Big Stuff"! Join this 100% hands-on session of data collection, analysis and discussion.		
Level(s):	Middle (6-8),High (9-12),Pre-service/Early Career Teachers	Type:	Workshop
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Planning and Carrying Out Investigations	Crosscutting	Energy and Matter
Practices:		Concepts:	

Day:	Saturday	Time:	8:00 AM
Title:	<i>Go Outside! Environmental science and the outdoor classroom</i>	Room:	202
Presenter(s):	Dixie Hamilton, Jessica Ventre	Vendor:	Educator
Session Length	50 minutes		
Description:	Looking for opportunities to take your classes outside? "Go Outside!" will take a journey through student engagement in an outdoor classroom while maintaining content rigor.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB); Environmental Science	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng.	Constructing Explanations and Designing	Crosscutting	Cause and Effect
Practices:	Solutions	Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Saturday	Time:	8:00 AM
Title:	<i>Triangles, Rectangles, Circles, too, Letters and Numbers, Look What You Can Do! Early Childhood STEM!</i>	Room:	203
Presenter(s):	Mary Yankosky-Amtsberg	Vendor:	Educator
Session Length	110 minutes		
Description:	Young children learn by "doing"! Infusing STEM into our classrooms, empowers our youngest learners to "do". We will investigate and create developmentally appropriate STEM projects. Lower Elementary (K-2), Pre-service/Early Career Teachers Passionate About Real-World Relevance of Science Through STEM/STEAM Workshop mamtsberg@umasd.org		
Level(s):	Middle (6-8), High (9-12), Advanced High (AP/IB); Environmental Science	Type:	Presentation
Strand:	Passionate About Three-Dimensional Science Practices		
Sci. & Eng. Practices:	Constructing Explanations and Designing Solutions	Crosscutting Concepts:	Cause and Effect

SATURDAY- 9:00AM

Day:	Saturday	Time:	9:00 AM
Title:	<i>Love Acronyms? Then RSVP to This Session ASAP!</i>	Room:	101
Presenter(s):	Jeff Lukens	Vendor:	Educator
Session Length	50 minutes		
Description:	The Big Three acronyms for science and math teachers are STEM, NGSS and CCSS. Come see how these three can and should be BFF's.		
Level(s):	Middle (6-8), High (9-12)	Type:	Workshop
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Analyzing and Interpreting Data	Crosscutting Concepts:	Systems and System Models

SATURDAY- 10:00AM

Day:	Saturday	Time:	10:00 AM
Title:	<i>Get 'Em Hooked</i>	Room:	101
Presenter(s):	Karyn Pumphrey	Vendor:	Educator
Session Length	50 minutes		
Description:	After participating in this session, you'll be able to conduct your own theme-based STEM day at your school, effectively and affordably.		
Level(s):	Lower Elementary (K-2), Upper Elementary (3-5)	Type:	Presentation
Strand:	Passionate About Real-World Relevance of Science Through STEM/STEAM		
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Day:	Saturday	Time:	10:00 AM
Title:	<i>SUN (Science You Need)</i>	Room:	102
Presenter(s):	Natasha M. Rabinowitz	Vendor:	Educator
Session Length	50 minutes		
Description:	Incorporation of Science into all classrooms (K-12)		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5),Middle (6-8)	Type:	Workshop
Strand:			
Sci. & Eng. Practices:		Crosscutting Concepts:	

Day:	Saturday	Time:	10:00 AM
Title:	<i>STEM: Inside and Out with Real Life & Standard Connections</i>	Room:	103
Presenter(s):	Sharon McClellan	Vendor:	Educator
Session Length	110 minutes		
Description:	At this time, we are the only dedicated STEM class in our county. I will share STEM activities we do throughout the year with connections to GA Standards.		
Level(s):	Lower Elementary (K-2),Upper Elementary (3-5)	Type:	Presentation
Strand:			
Sci. & Eng. Practices:	Planning and Carrying Out Investigations	Crosscutting Concepts:	Structure and Function

Day:	Saturday	Time:	10:00 AM
Title:	<i>A Culture of Collaboration in Science Literacy</i>	Room:	104
Presenter(s):	Dixie Hamilton, Jessica Ventre	Vendor:	Educator
Session Length	50 minutes		
Description:	The vision is to build a culture of collaboration in successful science literacy strategies among peers while also sharing our literacy successes and struggles.		
Level(s):	Middle (6-8),High (9-12),Advanced High (AP/IB)	Type:	Workshop
Strand:	Passionate About Literacy to Fuel Deeper Scientific Understanding		
Sci. & Eng. Practices:	Obtaining, Evaluating, and Communicating Information	Crosscutting Concepts:	

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

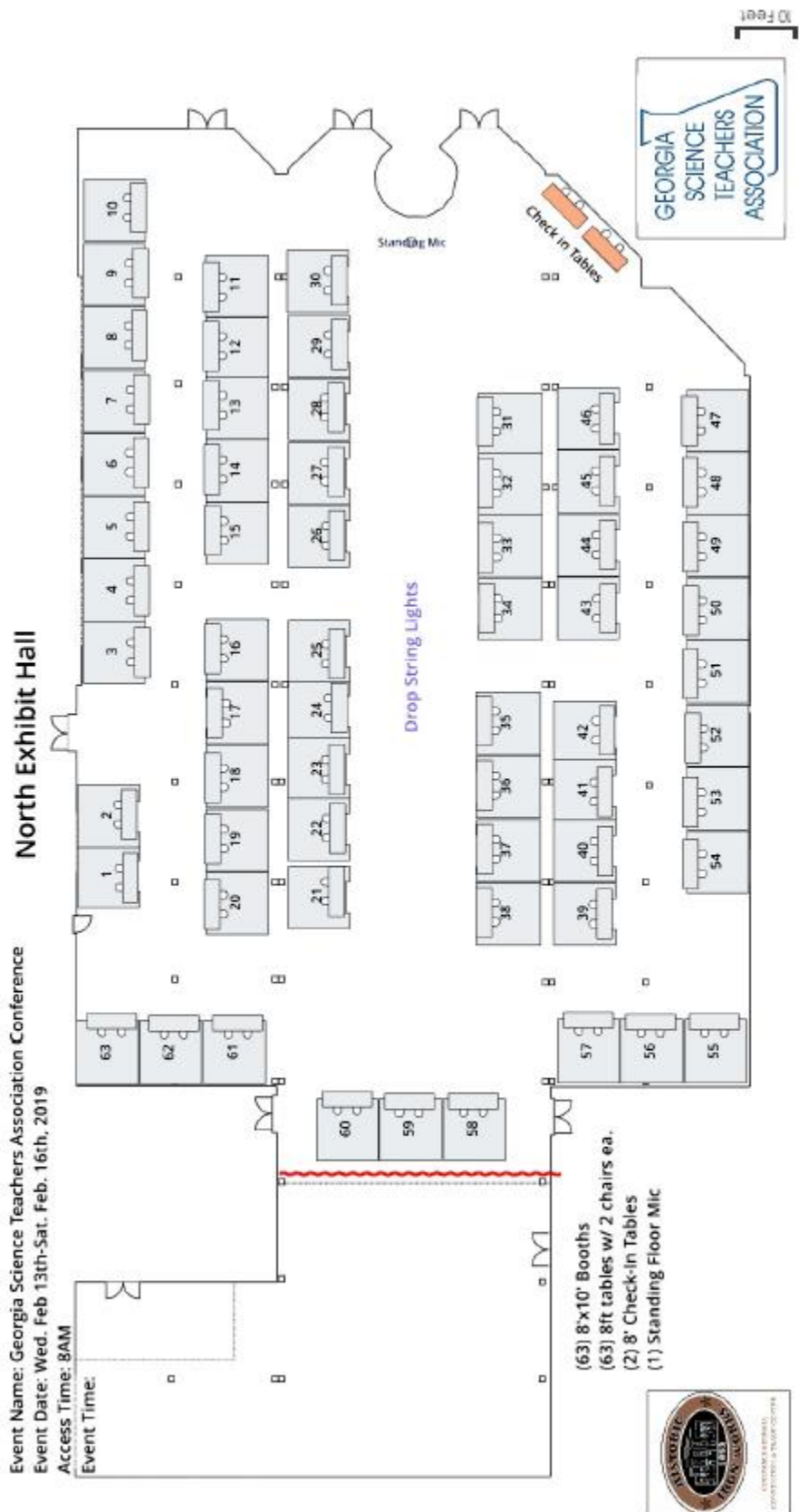
Exhibitors List & Map

Booth	Company	Website
6	Activate Learning	www.activatelearning.com
53	Anatomy In Clay Learning System	www.anatomyinclay.com
55 - 57	Astronomy To Go	www.stores.ebay.com/Astronomytogo
40	Bedford, Freeman and Worth	https://www.highschool.bfwpub.com/catalog
7	Bio-Rad	www.bio-rad.com
11	Capital Microscope Services, Inc	www.microscopesandmore.com
58	Chick-fil-A College Football Hall of Fame	http://www.cfbhall.com/
42	Coca-Cola Space Science Center	www.ccssc.org
1, 2	Columbus State University	https://www.columbusstate.edu/
32	Dodge Learning Resources/School Materials Network	www.schoolmaterials.net
41	Environmental Education Alliance of Georgia	www.eealliance.org
10	ETA hand2mind	www.hand2mind.com
8	ExploreLearning	www.explorelearning.com
16	Flinn Scientific	https://www.flinnsci.com/
9	Forestry Suppliers, Inc.	www.forestry-suppliers.com
51	Georgia Aquarium Inc	www.georgiaaquarium.org/learn
50	Georgia Envirothon	www.gaenvirothon.weebly.com
43	Georgia Mineral Society, Inc.	www.gamineral.org
44, 45	Georgia Projects	georgiaplnt.org ; georgiawildlife.com/projectwild ; projectwet.georgia.gov
12	Georgia Public Broadcasting	http://gpb.org/education
61 - 63	Georgia Science Teachers Association Store	www.georgiscienceteacher.org
13	Georgia Southern University	https://coe.georgiasouthern.edu/stem/
49	Georgia State Parks and Historic Sites	www.georgiastateparks.org
17	georgiarocks.us and NAGT	georgiarocks.us and georgiarocks.us/nagt
18	Green Power EMC	www.greenpoweremc.com
21	HHMI BioInteractive	www.biointeractive.org

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

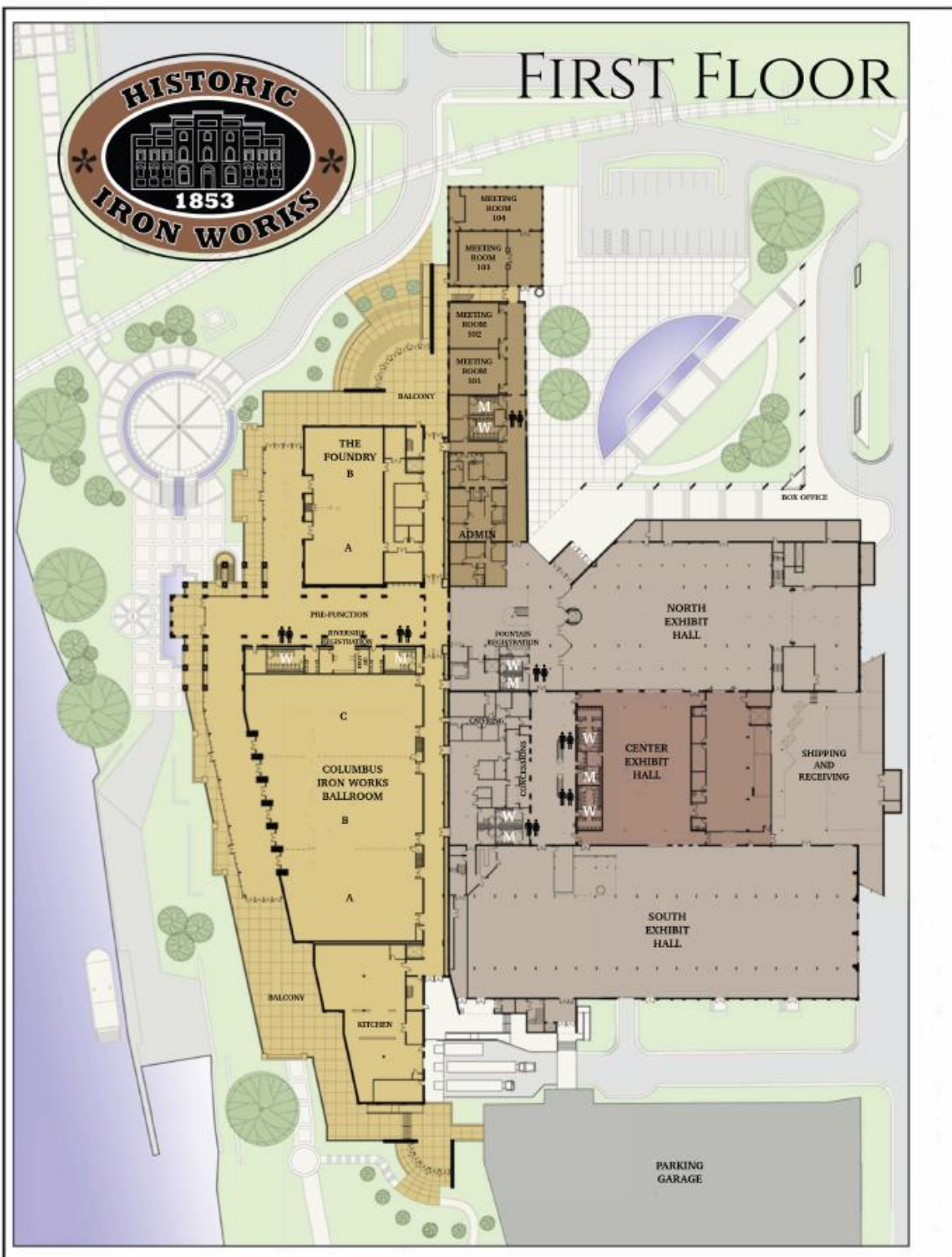
29	HIGH TOUCH HIGH TECH OF GREATER ATLANTA	sciencemadefunatl.net
28	HudsonAlpha Institute for Biotechnology	hudsonalpha.org
32	Lab-Aids	www.lab-aids.com
20	LearnEd Notebooks	http://www.learnednotebooks.com/
30	Learning A-Z	www.learninga-z.com
19	Legends of Learning	legendsoflearning.com
27	McGraw Hill Education	http://www.mheducation.com/prek-12
22	miniPCR	miniPCR.com
54	NJS Fashion Handbags	www.njshandbags.com
3, 4	NSTA	www.nsta.org
5	PASCO Scientific	www.pasco.com
14, 15	Pearson	pearsonschool.com
23	Piedmont College	www.piedmont.edu
33, 34	School Materials Network/Dodge Learning Resources	schoolmaterials.net
25	SENIC/GA Tech	Senic.gatech.edu
24	SmartSchool Systems	https://www.smartschoolsystems.com/
31	STEMscopes	http://stemscopes.com
37	Studies Weekly	www.studiesweekly.com
36	Texas Instruments	education.ti.com
35	The EDMAT Company	www.edmatcompany.com
52	The Science Friday Initiative	www.sciencefriday.com/educate
47	Tybee Island Marine Science Center	tybeemarinescience.org
46	UGA - Georgia 4-H Environmental Education	www.georgia4h.org
38	Vernier Software & Technology	https://www.vernier.com/
26	Ward's Science/Sargent Welch	www.wardsci.com and www.sargentwelch.com
39	Wild Adventures Theme Park	http://www.wildadventures.com/
48	Zoo Atlanta	www.zooatlanta.org

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

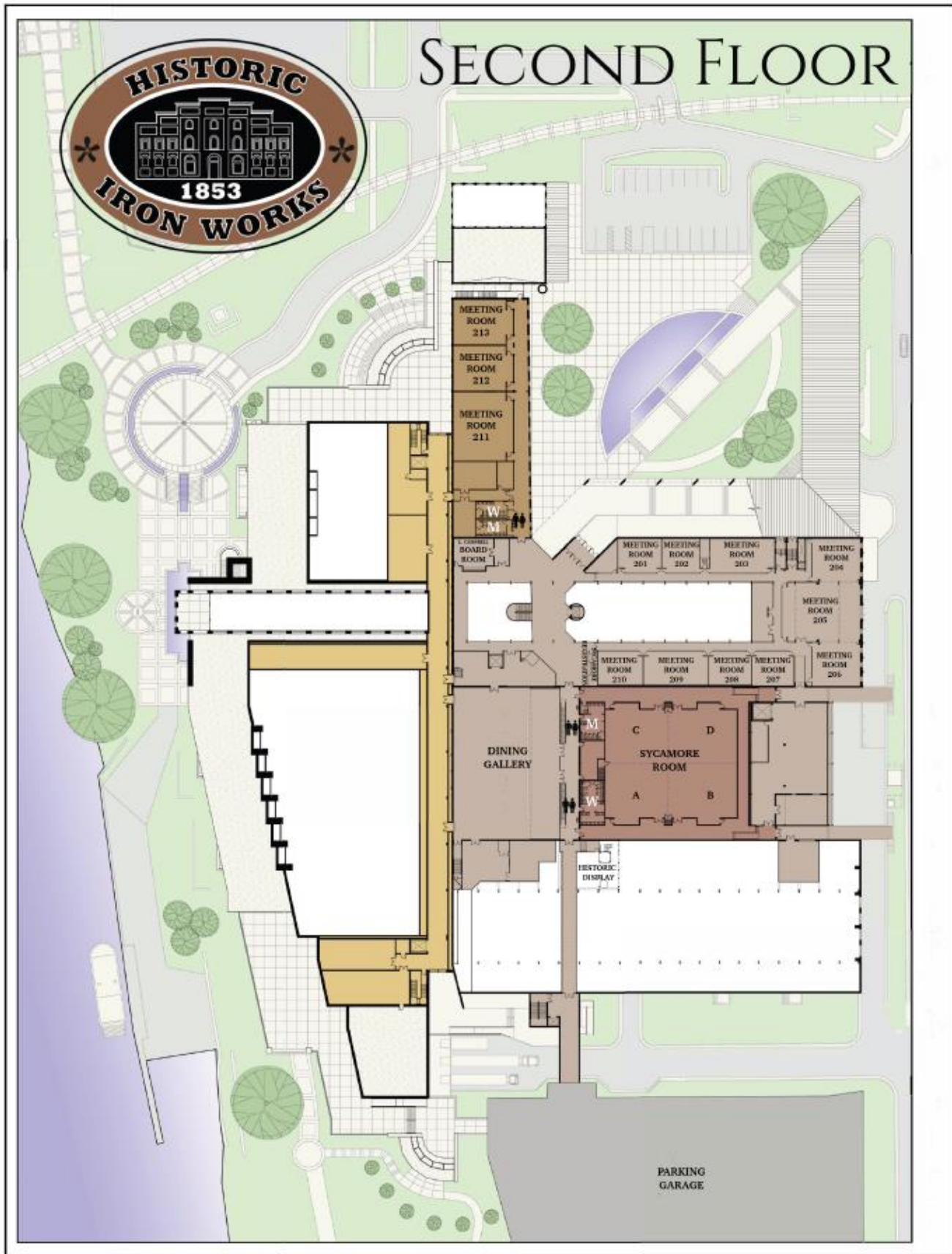


2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Meeting Room Maps



2019 GSTA CONFERENCE: I LOVE SCIENCE!!



2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Thursday Planner

Time	Room	Session
8 am		
9 am		
10 am		
11 am		
12 pm		
1 pm		
2 pm		
3 pm		
4 pm		
4:30pm	Foundry PreFunction	District and Level Meet and Greet with light refreshments provided
5:30 pm	Room 104	Whitewater Social

Friday Planner

Time	Room	Session
8 am		
9 am		
10 am		
11 am	Dining Gallery	GSTA Annual Meeting
12 pm		
1 pm		
2 pm		
3 pm		
4 pm		
5 pm	Exhibit Hall	Exhibit Hall Door Prizes – Must be Present to Win!
6:30pm	Foundry	GSTA Awards Banquet- Ticket Required
8:30 pm	Ball Room C	'80s Prom

Saturday Planner

Time	Room	Session
8 am		
9 am		
10 am		
11 am		

GEORGIA
SCIENCE
TEACHERS
ASSOCIATION

bit.ly/GSTA19transcript.

[illegible]

2019 GSTA CONFERENCE: I LOVE SCIENCE!!

Notes

[illegible]

THANKS TO OUR SPONSORS



American Book Company
The Standards Experts



CMS
CAPITAL MICROSCOPE SERVICES, INC.
(800) 377-4289



STONE MOUNTAIN
MEMORIAL ASSOCIATION