

9:00 AM – 10:00 AM Keynote Speaker (State Capitol)			
The Emerging Community of STEM Keynote Speaker: Jan Morrison			
STEM education uses the design process to enable our youngsters to intentionally solve problems that face our world today while understanding the underlying phenomena that govern how the world works. In the emerging STEM community we all have a role to play in enabling this kind of engagement and ensuring that it drives from student interest and culture while aligning with economic development and workforce needs. How does this help shift a school culture? What does this look like in a classroom? Who teaches this and what do the graduates look like? The T-STEM Centers have wrestled with these questions as they continue to be instrumental in developing an emerging STEM community for Texas.			
Session Title	Presenter	Room	10:15 AM – 11:00 AM
Interdisciplinary Robotics	Lorraine Bratcher Melissa Gossett NEISD Stem Academy	Canyon of the Eagles	Best robotics lessons and projects which incorporate mathematical reasoning, science concepts, multimedia, writing, engineering design, and oral presentation will be shared.
A Strategy for Building Success	Mandy Biggers Texas Tech University	Highland Lakes	Having trouble getting students to own a concept? Try Concept Attainment, a favorite teaching strategy that encourages students to look for patterns as they compare attributes of "yes" and "no" examples. Students better own concepts and demonstrate long-term retention because they derive the definitions in their own terms. Participants will engage in some of the favorite applications we have developed at CISER that energize and enhance learning in K-12 classrooms.
Secret Way to Functions	Rick Garcia IDEA Public Schools	State Capitol	Looking for an exciting way to introduce students to functions? You've come to the right place! During this session, we will use the TI Navigator and TI-84 graphing calculator to produce inputs and outputs through coding and decoding words.
How to Grow A System	Caroline Chromey KIPP Houston	Clarksville	Many institutions have systems in place and create models to implement them. But how about the reverse? You recognize that incredible lesson or project or strategy one teacher uses and think it would be great to have others implement. How do you develop and integrate model ideas for the benefit of the whole institution? This session will focus on the process of growing your own ideas.
Integrating Math and Science in a Problem Based learning Environment	Janice Trinidad Pedro Merced Manor New Tech High School	Lost Pines	Join us as we share how to remove math and science from their individual silos to create an integrated, interdisciplinary approach to teaching IPC and Algebra 1. We will demonstrate how to create standards-based projects that allow for scaffolding of instruction and ongoing assessment opportunities. Collaboration and technology skills that support the academic success of all students will also be addressed.
Using LEGO in your Robotics Classroom	Betty Justus LEGO	Warm Springs/ Natural Bridge Caverns	LEGO Education has been dedicated to helping build tomorrow's engineers and scientists using robotics as the vehicle to help illustrate core concepts in mathematics, technology, science, and engineering. LEGO learning methodology is based on using the engineering design process to actively engage students in scientific inquiry and provide them real world experience with working with construction, mechanisms, and learning programming techniques.
Session Title	Presenter	Room	11:15 AM – 12:00 PM
Crash Test Dummies A Project Based Approach to Teaching Conservation of Momentum	David Culp METSAs Academy	Canyon of the Eagles	A novel, project based approach to teaching conservation of momentum will be presented. Students are thrown into the roles of professional crash investigators and are given a number of real world scenarios and asked to use their knowledge of physics in order to solve the mystery of each crash and determine who was at fault in each scenario.
Technology Vertical Alignment and Desktop Publishing Strategies	Craig Gutierrez YES College Preparatory	Highland Lakes	A look at how alignment between middle school and high school curricula sets students up for success in a Desktop Publishing course focused on real-world applications and cooperative learning environments.
Derailing the Geek Track: Attracting, Engaging and Retaining Non-traditional Computer Science Students	Rita Vasak YES College Preparatory	State Capitol	This presentation will focus on ways to recruit young women, minorities, and students who are not traditionally "geeky programmer types" into our first year computer science courses. Strategies and best practices for engaging these students and retaining them in a high school computer science program will be addressed.

Session Title	Presenter	Room	11:15 AM – 12:00 PM
Creating a Collaborative Environment in Schools	Portia Butler April Moon Waxahachie Global High School	Clarksville	Instructional collaboration is an integral element of student success and requires planning and time to implement effectively. This session will focus on creating a collaborative culture with examples of triumphs and challenges from two key members: the instructor and the administrator.
Employability Skills:Teaching Professional Skills For Life	Cathleen Whillock The Academy at Irving ISD	Lost Pines	Success in business and college requires students to acquire basic "employability" skills: being on-time, turning in assignments on-time, professionalism, accomplishing goals and the ethical use of technology.
STEM Resources to Enhance Your Classroom	Claudia Gutierrez El Centro del Futuro	Warm Springs/ Natural Bridge Caverns	Identifying high level STEM resources for your classroom may be easier than you think. Resources that are available to you at no cost and can increase student engagement and achievement by introducing online activities into your classroom lessons will be addressed.
12:00 PM – 12:30 PM - Lunch			
12:30 PM – 1:00 PM Keynote Speaker (State Capitol)			
Raising The Bar: K-12 STEM Education Keynote Speaker: Yvonne Spicer			
In the 21st century, Science, Technology, Engineering and Mathematics (STEM) creates opportunities for our students to have a bright future. The question we need to ask ourselves is: "Are we preparing students for their future or our past?" In the global economy, invention and innovation are challenging us to stay competitive. This presentation will address the state of STEM education today, current resources in the field, and initiatives to deal with a growing concern in the United States—technological illiteracy. As educators, we have a significant role to play in meeting this challenge, but do we have the necessary tools? According to a report by the National Academies, "Rising Above the Gathering Storm, Energizing and Employing America for a Brighter Economic Future, the scientific and technical building blocks of our economic leadership are eroding at a time when many other nations are gathering strength." As educators, I believe we have the ability to raise the bar.			
Session Title	Presenter	Room	1:15 PM – 2:00 PM
Hit the Ground Running: Technology From Day One to Day 180	Teresa Megahan Waxahachie Global High School	Canyon of the Eagles	Looking to create projects, products, and demonstrations that are relevant in today's biology classroom? Demonstration and discussion which capitalizes on students' enthusiasm for social networking sites is one of many student products, lesson plans, and rubrics that will be demonstrated. Graphical User Interface programs which make technology easy and accessible for students and instructors intent on integrating technology in a meaningful and useful way will also be demonstrated.
Bourne to be Wild	Mary Mobley Michael Chambers Manor New Tech High School	Highland Lakes	Students are international spies and to create an electronic dossier of characters based on character analyses and collect intelligence from European countries. They will then present their findings to a secret government committee.
Math, Science, Technology Best Practices and STEM Labs	Gustavo Perez IDEA Public Schools	State Capitol	Participants will be presented with best practice methods for incorporating STEM labs into curriculum. Short clips will illustrate student participation in lab work. The session will include additional methods for modifying existing lab experiments to target specific levels and ages to effectively integrate math, science, and technology.
Behavior Management Skill Based Discipline	Debbie Crinzi Iris Burnham Da Vinci School	Clarksville	STEM teachers struggle with the challenge of guiding students with deficient behavior skills to accept academic rigor. Many students come into the STEM environment uncommitted and/or unprepared with the habits that support deep learning. Learn specific developmental targets that students can work towards to assist them in being prepared to learn in the classroom. The Graduation Preparation System (GPS) will be outlined that is currently being used by the Da Vinci School for Science and the Arts which allowed the school to jump to Recognized status its opening year.
Project Based Integrated Curriculum	Megan Sanders Jessica Thomas Nadrishah Velasquez METSAs Academy	Lost Pines	This session will provide an explanation of project based learning through an example of Romeo and Juliet with Inequalities. Project includes different polygons and connects to the physical and cultural geography of Europe.
The Engineering Design Process in Your Classroom	Cassandra Ricks Julianne Webb Transformation 2013	Warm Springs/ Natural Bridge Caverns	Are you looking for exciting instructional techniques to implement in your classroom? This session will introduce you to icebreakers, team building activities, design challenges, and technology incorporation ideas that are sure to engage and excite your students. Come for a little taste of the staff development opportunities that are currently offered!
2:15 PM – 3:00 PM Closing Session (State Capitol)			
Manor New Tech High School Student Panel			
Listen and learn from students attending Manor NTHS. MNTHS students will share their thoughts and opinions around learning that focuses on interdisciplinary instruction, and global perspectives in a student-centered, collaborative, project-based environment.			

8:30 AM – 9:00 AM	Registration/Light Breakfast (Treaty Oak)						
9:00 AM – 10:00 AM	<p align="center">The Emerging Community of STEM Keynote Speaker: Jan Morrison</p> <p>STEM education uses the design process to enable our youngsters to intentionally solve problems that face our world today while understanding the underlying phenomena that govern how the world works. In the emerging STEM community we all have a role to play in enabling this kind of engagement and ensuring that it drives from student interest and culture while aligning with economic development and workforce needs. How does this help shift a school culture? What does this look like in a classroom? Who teaches this and what do the graduates look like? The T-STEM Centers have wrestled with these questions as they continue to be instrumental in developing an emerging STEM community for Texas.</p>						
Room Break-out Sessions	Canyon of the Eagles	Highland Lakes	State Capitol	Clarksville	Lost Pines	Warm Springs/ Natural Bridge Caverns	
10:15 AM – 11:00 AM	Interdisciplinary Robotics Lorraine Bratcher Melissa Gossett Middle School	A Strategy for Building Success Mandy Biggers Middle/High School	Secret Way to Functions Rick Garcia High School	How to Grow A System Caroline Chromey Middle/High School	Integrating Math and Science in a Problem Based Learning Environment Janice Trinidad Pedro Merced High School	Using LEGO in your Robotics Classroom Betty Justus Middle/High School	
11:15 AM – 12:00 PM	Crash Test Dummies– A Project Based Approach to Teaching Conservation of Momentum David Culp High School	Technology Vertical Alignment and Desktop Publishing Strategies Craig Gutierrez Middle/High School	Derailing the Geek Track: Attracting, Engaging and Retaining Non-traditional Computer Science Students Rita Vasak Middle/High School	Creating a Collaborative Environment in Schools Portia Butler April Moon Middle/High School	Employability Skills:Teaching Professional Skills For Life Cathleen Whillock Middle/High School	STEM Resources to Enhance Your Classroom Claudia Gutierrez Middle/High School	
12:00 PM – 12:30 PM	<p align="center">Lunch <i>Visit the exhibitors in Treaty Oak</i></p>						
12:30 PM – 1:00 PM	<p align="center">Raising The Bar: K-12 STEM Education Keynote Speaker: Yvonne Spicer</p> <p>In the 21st century, Science, Technology, Engineering and Mathematics (STEM) creates opportunities for our students to have a bright future. The question we need to ask ourselves is: “Are we preparing students for their future or our past?” In the global economy, invention and innovation are challenging us to stay competitive. This presentation will address the state of STEM education today, current resources in the field, and initiatives to deal with a growing concern in the United States—technological illiteracy. As educators, we have a significant role to play in meeting this challenge, but do we have the necessary tools? According to a report by the National Academies, “Rising Above the Gathering Storm, Energizing and Employing America for a Brighter Economic Future, the scientific and technical building blocks of our economic leadership are eroding at a time when many other nations are gathering strength.” As educators, I believe we have the ability to raise the bar.</p>						
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2:15 PM – 3:00 PM	<p align="center">Closing Session Manor New Tech High School-Student Panel</p> <p>Listen and learn from students attending Manor NTHS. MNTHS students will share their thoughts and opinions about learning that focuses on interdisciplinary instruction, and global perspectives in a student-centered, collaborative, project-based environment. MNTH promotes lifelong learning, productive citizenry, and personal growth. Students develop problem-solving skills, interpersonal skills, and the resiliency they need to succeed in a rapidly-changing and competitive world.</p>						

Improving Student Achievement Outcomes



Teach Today, Transform Tomorrow SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH (STEM) BEST PRACTICES CONFERENCE

February 27, 2008

