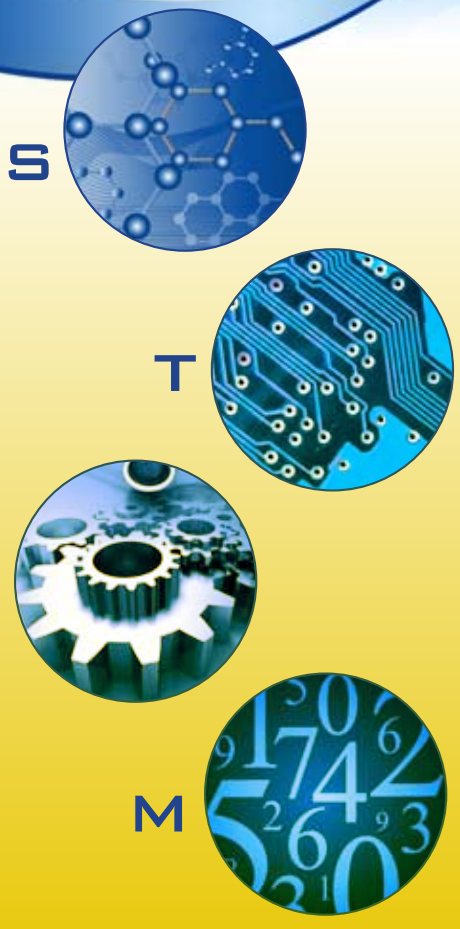
Texas Regional Collaboratives for Excellence
in Science and Mathematics Teaching

SIXTEENTH ANNUAL MEETING

June 29 - July 1, 2010



STEM Education Excellence

for a

21st Century Workforce

This agenda belongs to:

Name: _____

Collaborative: _____

Cell Phone Number: _____

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WELCOME

June 29, 2010

Dear Annual Meeting Attendees and Guests,

Welcome to the Sixteenth Annual Meeting of the Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching (TRC). For over nineteen years, thousands of TRC teacher leaders, educators, professors, administrators, policy makers, and corporate partners have come together, stayed together, and worked together to build capacity in our schools and support excellence in Science, Technology, Engineering, and Mathematics (STEM) education for all students.

This year's theme, *STEM Education Excellence for a 21st Century Workforce*, challenges us to renew our commitment to join forces with our education, state, and corporate partners to prepare a highly educated and skilled workforce for an increasingly scientific and technological workplace.

Successful collaboration among all of us in the STEM education community will help our schools achieve rigor and relevance in science and mathematics teaching and learning. Transforming the culture of STEM education will enable our state and the nation meet the challenges of a rapidly changing 21st Century.

The TRC team has worked diligently to develop an informative and stimulating program of STEM presentations, demonstrations, exhibits, and panel discussions that embody the foundation and substance of high quality science and mathematics teaching and learning, and their connection to professional development and workforce preparation.

To our major partner, the Texas Education Agency, our corporate partners, and all of our P-16 partners, I express my sincere gratitude and appreciation for helping us mark another milestone of achievements in the service of STEM education and workforce development.

Thank you for taking the time to join us for another exciting professional experience!

Sincerely,

Kamil A. Jbeily, Ph.D.
Executive Director
Texas Regional Collaboratives

EVENING PROGRAM

SHOWCASE AND RECEPTION
Tuesday, June 29, 2010
5:30 - 7:00 p.m. - Rio Grande A

DINNER
7:00 p.m. - Grand Ballroom

INTRODUCTION
Kamil A. Jbeily, Ph.D.
Executive Director, Texas Regional Collaboratives
The University of Texas at Austin

WELCOME
Norma V. Cantú
Chair, Curriculum and Instruction
College of Education
The University of Texas at Austin

GREETINGS AND REMARKS
Anne Vexler
Manager, Math and Science Partnerships
School Readiness and Partnerships
Texas Education Agency

Renée Flores
Executive Director, External Affairs
AT&T - Texas

KEYNOTE SPEAKER
The Honorable Mark Strama
Chair, Technology, Economic Development,
and Workforce Committee
Texas House of Representatives

TRC 2010 DISTINGUISHED SERVICE AWARD

KEYNOTE SPEAKER

The Honorable Mark Strama
Chair, Technology, Economic Development, and Workforce Committee
Texas House of Representatives

Mark Strama, elected to the Texas House of Representatives in 2004, is a native Texan who has divided his career between public service and private business, always fighting to empower voters and make government more responsive to every American.

After graduating from Brown University, he worked on Ann Richards' successful 1990 campaign for governor. He went on to become chief of staff for State Senator Rodney Ellis. During Mark's tenure, Senator Ellis was named one of the ten best legislators in the state by Texas Monthly. In 1995, Mark left government to become director of programs at Rock the Vote, where he helped register more than a million new voters.

Mark returned to Austin to found the first company to register voters online. Working to bring the economy, efficiency, and convenience of new technology to the democratic process, Mark's company was acquired by New York-based Election.com in 2000, and helped over 700,000 Americans register to vote online in the 2000 election cycle.

Mark is a member of the Greater Pflugerville Chamber of Commerce and the Pflugerville Council of Neighborhood Associations. He is also a founding member of the Pflugerville ISD MEN in Education program, which places male volunteers in schools and school activities to serve as mentors and role models. Mark has served on the Board of Directors of KidsVoting USA, a national non-profit organization that develops civics education programs for K-12 students. He was a founding board member of Hope Street Group, a non-partisan organization of young business leaders that seeks to achieve equality of opportunity in a high-growth economy.

With a broad range of experience in the business sector, nonprofit sector, and in government, Mark is a voice for independence and integrity in the Texas Legislature. He advocates comprehensive reforms to the political system, so that politicians will place the public interest above special interests to improve our schools, health care, transportation systems, and economy.

GREETINGS AND REMARKS

Norma V. Cantú
Chair, Curriculum and Instruction
College of Education
The University of Texas at Austin

Anne Vexler
Manager, Math and Science Partnerships
School Readiness and Partnerships
Texas Education Agency

Renée Flores
Executive Director, External Affairs
AT&T - Texas

The Science-Literacy Connection

Wednesday, June 30 • 8:00 - 9:15 a.m. • Grand Ballroom

Michael Klentschy
Science Consultant

This presentation will focus on the science-literacy connection and how it has been successfully used to close achievement gaps, assist English language learners in connecting to the core curriculum, and use classroom talk and writing as important components of inquiry. Relationships between literacy skills such as comprehension and inquiry will be highlighted along with classroom tested best practices for the use of science notebooks.

How Children Learn: Brain Research and Inquiry-based Science

Wednesday, June 30 • 3:30 - 4:45 p.m. • Glass Oaks

Kenneth Wesson
Educational Consultant, Neuroscience, and Vice President, International and Western Divisions,
Delta Education/School Specialty Science, San Jose, CA

If it's your job to develop the mind, shouldn't you know how the brain works? While there is no profession more noble than educating young minds to their fullest developmental potential, preschool to university-level faculty members seldom receive any professional preparation on "how the brain works." Just as modern medicine produced more successful outcomes once it became more grounded in biological science, a scientifically supported framework that integrates brain science in instructional procedures will increasingly influence successful educational practices. Factual information increases rapidly and is quickly outdated, but the reliable principles of neuroscience will survive all tests of time. This presentation will highlight those principles in the contemporary context of education.

The Other Lessons: What Students Keep For Life

Thursday, July 1 • 8:00 - 9:15 a.m. • Grand Ballroom

Michael Starbird, Ph.D.
Professor of Mathematics and University Distinguished Teaching Professor
The University of Texas at Austin

"Education is what survives when what has been learned has been forgotten."-B.F. Skinner. The vast majority of our students soon forget most of the details they learn in classes–sometimes, in fact, before the final. Let's design our courses and curricula so that what survives in our students, after they forget, clearly improves their lives.

21ST CENTURY CAREERS PANEL DISCUSSIONS

Preparing Students For Their Future, Not Our Past

Many of the careers our students will be pursuing don't even exist today. Are we doing what is necessary to prepare our students for their future rather than our past? What are some of the emerging fields of which teachers need to be aware? What are the post-secondary routes to certification or degrees for entry into these fields? What are the skills students need to successfully compete for jobs in these areas? How can PreK-12 educators prepare students for these fields? All these questions and more will be addressed in these interactive panel discussions with experts in these fields.

Digital/Creative Media Careers Panel

Wednesday, June 30 • 3:30 - 4:45 p.m. • Grand Ballroom

MODERATOR

Keith Mitchell, Ph.D.
Coordinator for Technology Initiatives
Texas Regional Collaboratives

PANELISTS

Tim McLaughlin
Associate Professor and Department Head
Department of Visualization
Texas A&M University

Leslie Miller, Ph.D.
Executive Director
Rice University Center for Technology in Teaching and Learning

Stephan Samuelson
President & CEO
Twist Education

Spencer Zuzolo
President
3D Squared

Green Tech Careers Panel

Wednesday, June 30 - 3:30 to 4:45 p.m. • Wedgwood

MODERATOR

Carol Fletcher, Ph.D.
Assistant Director/R&D Coordinator
Texas Regional Collaboratives

PANELISTS

Hector Aguilar, Ph.D.
Executive Dean, Continuing Education
Austin Community College District

Stacy Dukes-Rhone
Executive Director
BiGAustin

Cliff Zintgraff
CEO
DaVinci Minds

VENDOR FAIR

Wednesday, June 30 • 5:00 - 7:00 p.m. • Rio Grande B

The TRC Vendor Fair is an opportunity for those attending the Annual Meeting to view high quality science and mathematics instructional materials as displayed by a variety of commercial and educational companies and non-profit organizations.

Attendees are encouraged to visit informally with company representatives to learn about the latest in books, equipment and technology for the classroom. Light refreshments will be served.

The Texas Regional Collaboratives does not endorse any particular vendor or any particular product sold, used, or displayed at this event.

LIST OF VENDORS

- Abrams Learning Trends
- CPO Science
- Delta Education
- EAI Education
- Educators Outlet
- Environmental Science Institute, UT Austin
- Fisher Science Education
- LAB-AIDS
- National Geographic
- PASCO Scientific
- Peoples Education
- Rice Online Curriculum Center
- Sargent Welch-Science Kit-Wards Natural Science
- Science Teachers Association of Texas
- SmartSchool Systems
- Texas Girls Collaborative Project
- Texas Instruments
- The GLOBE Program
- Transformation 2013 T-STEM Center
- University of Texas MD Anderson Cancer Center
- UT School of Public Health
- UTeach*Engineering*
- Vernier Software & Technology

List subject to change

TUESDAY, JUNE 29 - SESSION 1

TIME		PRESENTATIONS / ACTIVITIES		ROOM
8:30 - 11:30 a.m.		Beginning Teacher Induction and Mentoring Program (BTIM)		**Glass Oaks** *Access via Main Floor**
10:00 a.m. - 5:00 p.m.		REGISTRATION		**Rio Grande Foyer** *Lower Level*
10:00 a.m. - 5:30 p.m.		SET-UP Showcase Exhibits		**Rio Grande A** *Lower Level*
12:00 - 2:00 p.m.		OPENING LUNCHEON and PROGRAM *Details on Page 7*		**Rio Grande B** *Lower Level*
2:30 - 4:00 p.m.	**SESSION 1**		**Level**	
	A	**NASA Education: Explore, Discover, and Understand** Brown	All *STEM*	**Wedgwood** *Main Floor*
	B	**Formative Assessment Doesn't Have to Be Boring!** Andrews/Brown	Elementary *Science/Technology*	**Bosque** *Main Floor*
	C	**Basic Electricity: Build Your Own Motor** Bergman/Schneider	Middle/High School *Science/Technology*	**Concho** *Main Floor*
	D	**5E Instructional Model – What Does it Look Like in the Math Classroom?** Wright/Stone	Middle/High School *Math*	**Frio** *Main Floor*
	E	**A Natural Approach to Conquering Test Anxiety** Garcia	All *Math*	**Guadalupe** *Main Floor*
	F	**Design-Based Science and Math** Webb/Brierty	All *STEM*	**Brazos** *Main Floor*
	G	**Measuring the Age of the Universe From Your Own Classroom** Pennypacker/Morgado	Middle School *Science*	**San Antonio** *Lower Level*
	H	**Hickory Dickory Dock: The Pendulum Runs the Clock** Yarger/Puckett	Elementary *Math*	**San Marcos** *Lower Level*
	I	**Elementary Math Boot Camp** Sweet/Rhodes	Elementary *Math*	**Sabine** *Lower Level*
	J	**VAK: (Visual, Auditory, Kinesthetic) Implementing All Three Learning Styles in Your Daily Lessons** Reyes	All *Science*	**Pecos** *Lower Level*
	K	**Physical Science Activities for Young Children** Williams	Elementary *Science*	**San Saba** *Lower Level*
	L	**The TRC Online Learning Community (TOLC) and Project Share** Mitchell/Solis	All *Technology*	**Glass Oaks** *Access via Main Floor**
5:30 - 7:00 p.m.		SHOWCASE and RECEPTION		**Rio Grande A** *Lower Level*
7:00 p.m.		DINNER and PROGRAM *Details on Page 2 and 3*		**Grand Ballroom** *Main Floor*

** **Glass Oaks** is the building located to the west of the main hotel. You access it by walking outside of the doors on the Atrium level (behind AustinBytes), down the stairs and enter through the doors on the left.*

NOTES

SESSION 1 - PRESENTATION DESCRIPTIONS

A. NASA Education: Explore, Discover, and Understand

Lisa Brown, *NASA Aerospace Education Services Project.*
NASA's Aerospace Education Services Project (AESP) is the longest running K-12 effort in NASA's education history. AESP utilizes NASA's many educational assets to aid formal and informal U.S. education communities in promoting science, technology, engineering, and math. With a strong emphasis on professional development, the project customizes educator workshops and courses, classroom demonstrations, parent programs, and classroom resources to meet the needs of the participants. The ultimate goal is to attract and retain students in science, math, and related disciplines that are vital to the U.S. space program.

B. Formative Assessment Doesn't Have to Be Boring!

Kelley Andrews, *Richardson ISD;* **Susan Brown**, *Garland ISD*
This presentation will give you many great ideas that you can incorporate into your classroom as soon as you return to school. We will be incorporating Paige Keeley's ideas from some of her books, as well as giving you ideas we have developed in our own classrooms. Technology will also be incorporated into this fast-paced class.

C. Basic Electricity: Build Your Own Motor

James Bergman, *Amarillo ISD;* **Arthur Schneider**, *Amarillo College*
Participants will build a simple, inexpensive motor. Materials will be provided. Technology resources will be explored through media.

D. 5E Instructional Model – What Does it Look Like in the Math Classroom?

Shane Wright, *ESC Region 8;* **Rhonda Stone**, *De Kalb ISD*
In this session, participants will explore the components of the 5E Instructional Model lesson cycle through the lens of teacher and student behaviors. Special emphasis will be given to the ENGAGE and EXPLORE phases of the lesson cycle. Participants will have the opportunity to have professional dialogue regarding instructional practices after viewing and reflecting on video of 5E lessons being taught in actual classrooms.

E. A Natural Approach to Conquering Test Anxiety

Marianne Garcia, *Lockhart ISD*
We've all had students who know the material in class, answer our questions, but then on the test, they fail miserably. In this workshop you will learn several natural approaches to stress and test anxiety, which will allow your student to be successful on your tests and the TAKS test. You will receive a CD with two relaxation activities to take home.

F. Design-Based Science and Math

Joules Webb, *ESC Region 20;* **Stephanie Brierty**, *ESC Region 13*
The term "technology" as described in the national science standards, implies the design, engineering, and the technological issues related to conceiving, building, maintaining and disposing of the useful objects and/or processes in the human-built world. Participants will learn how to integrate Design/Engineering/Technology materials and exercises into the teaching of mathematics and science through hands-on, inquiry-based activities. STEM career connection resources/ideas are also shared.

G. Measuring the Age of the Universe From Your Own Classroom

Carl Pennypacker and **Stephanie Morgado**, *University of California, Berkeley*
Using the metacognitive benefits of hands-on education and the integration of math and science, this lesson uses simple kinematics to explore cosmological red shift, star death, and how the Hubble Law is a natural result of the expansion of the universe. Ultimately, using this new knowledge, students will measure the age of the universe by looking at Type Ia supernovae data connected from the Sloan Digital Sky Survey, and analyze it with image processing software (SalsaJ).

H. Hickory Dickory Dock: The Pendulum Runs the Clock

Debbie Yarger and **Suzanne Puckett**, *Fort Worth ISD*
Using literature combined with physical science, participants will investigate the working of pendulums.

I. Elementary Math Boot Camp

Michael Sweet, *Pharr-San Juan-Alamo ISD;* **Jayne Rhodes**, *San Perlita ISD*
Participants will engage in an elementary math boot camp where they will use foldables, play games, and make activities that they can share with their students, so that they can use at home to reinforce their learning from class.

J. VAK: (Visual, Auditory, Kinesthetic) Implementing All Three Learning Styles in Your Daily Lessons

Melinda Reyes, *El Paso Bridges Academy*
The importance of using visual, auditory, and kinesthetic (VAK) techniques in every lesson will be demonstrated in this session. The VAK strategies engage the brain in such a way that makes learning enjoyable. Many of our students respond more positively to visual, auditory and kinesthetic lessons. Participants will learn useful techniques to keep their students engaged.

K. Physical Science Activities for Young Children

Bob Williams, *Professor Emeritus, Southern Illinois University*
Participants will be engaged in hands-on activities using simple objects and some basic science tools that stretch their own science process skills, while simultaneously learning ways to extend their students' knowledge and communication skills via oral language, graphing, and journaling. The Physical Science topics of Properties of Matter and Force and Motion as well as Measurement will form the context for introducing instructional activities and assessing children's learning appropriate for Pre-K through Grade 2.

L. The TRC Online Learning Community and Project Share

Keith Mitchell and **John Solis**, *Texas Regional Collaboratives*
The TRC Online Learning Community (TOLC) is evolving in new and exciting directions. Attend this session to see an overview of the features and functionality of the TEA Project Share infrastructure and to join into an open discussion of how the TRC community can become an active participant. Learn more about the TRC virtual meeting initiative. Meet and give feedback to Dr. Solis, the new TRC Coordinator for Technology Initiatives.

TUESDAY, JUNE 29 - LUNCH PROGRAM

INTRODUCTION
Kamil A. Jbeily, Ph.D., *Executive Director, TRC*

GREETINGS FROM THE TEXAS EDUCATION AGENCY
Jan Lindsey
Senior Director, State Initiatives

Teaching and Mentoring Excellence Awards
(List on Page 28)

WEDNESDAY, JUNE 30 - MORNING SESSION 2

TIME		PRESENTATIONS / ACTIVITIES		ROOM
6:30 - 7:45 a.m.		BREAKFAST		**Grand Ballroom** *Main Floor*
8:00 - 9:15 a.m.		**GENERAL SESSION**		
		The Science-Literacy Connection Michael Klentschy - *Details on Page 4*		**Grand Ballroom** *Main Floor*
9:30 - 10:30 a.m.		**SESSION 2**	**Level**	
	A	**NASA Explorer Schools** LaSalvia	Middle/High School *Science*	**Wedgwood** *Main Floor*
	B	**Fostering Algebraic Thinking in the Middle Grades** Bryand	Middle School *Math*	**Bosque** *Main Floor*
	C	**"SUM"MER FUN: Science Unites Mathematically** Bigelow	Elem./Middle School *Math/Science*	**Concho** *Main Floor*
	D	**Transparent Journaling** Beardshaw/Favela	All *Science*	**Frio** *Main Floor*
	E	**Engaging Students in Ethical Conversations** McMillan/Anderson	Middle/High School *Science/Careers*	**Guadalupe** *Main Floor*
	F	**Geometry in Construction Part 1** Burke/Moore	Middle/High School *Math*	**Nueces** *Main Floor*
	G	**"Trolling" Through Science with Technology Applications** Dehnel/Lehman	Middle/High School *Science*	**Brazos** *Main Floor*
	H	**Empowering Teachers in Three Easy Steps** Hobbs/Moreland	Leadership	**San Antonio** *Lower Level*
	I	**It Isn't Your Momma's Science Class** Kerr-Chapa	High School *Science*	**San Marcos** *Lower Level*
	J	**Helping Students to Measure Up! Teaching Length in the Primary Classroom** Rhodes/Sweet	Elementary *Math*	**Sabine** *Lower Level*
	K	**Why Won't My Students Talk About Math?** Erbes/Vela	Elementary *Math*	**Pecos** *Lower Level*
	L	**The Fourth R: Reading, Writing, Arithmetic and ROCKETS** Cable/Brooks	Middle School *STEM*	**San Saba** *Lower Level*
	M	**PLT with a Texas Twist** Long/Brown/Denny	Elem./Middle School *Science*	**Trinity** *Lower Level*
	N	**TAME & The Trailblazer Mobile Exhibit** Nevels	All *Science*	**Rio Grande B** *Lower Level*
10:30 - 10:45 a.m.		BREAK		

NOTES

SESSION 2 - PRESENTATION DESCRIPTIONS

A. NASA Explorer Schools
Robert LaSalvia, *NASA Glenn Research Center, Cleveland, Ohio*
Become a NASA Explorer School! The NASA Explorer Schools (NES) Project is NASA's classroom-based gateway for middle and high school students that provide authentic learning experiences designed around NASA's unique missions while promoting student engagement in science, technology, engineering and mathematics (STEM). NES allows students to participate in NASA's mission of research and discovery through inquiry based experiences and interactions with NASA's technical workforce.

B. Fostering Algebraic Thinking in the Middle Grades
Courtney Bryand, *East Central ISD*
Are you a middle school math teacher interested in better preparing your students for algebra? Do you want to pique your students' curiosity and challenge them through problem solving tasks? Join us, and see students at work communicating about mathematics concepts. Then, take some ideas back to your own classroom! Participants will receive a set of problem solving tasks as well as ideas for fostering algebraic thinking through classroom structures and activities.

C. "SUM"MER FUN: Science Unites Mathematically
Susan Bigelow, *Houston ISD*
Come experience some engaging activities geared toward students in grades 4-8 integrating the concepts of math and science. Activities focus on geometry, measurement, probability, predictions, testing hypotheses, drawing conclusions and making inferences. Legitimatize dialogue and have fun while mastering TAKS skills without boring worksheets.

D. Transparent Journaling
Elizabeth Beardshaw, *Allen ISD;* **Candice Favela**, *Garland ISD*
Take your journaling to a new interactive study level. Help your struggling students with journaling techniques that are not only helpful for a visual learner, but gets your kinesthetic learner actively involved by utilizing and incorporating all those old transparencies.

E. Engaging Students in Ethical Conversations
Tobi McMillan and **Sarah Joy Anderson**, *ESC Region 17/Texas Tech University*
Ethics is going to be key for Texas students as they enter the 21st Century workforce. Come join us in the ethical conversation and walk away with activities that can be used to engage students with life science content. Hook your students by giving them real world issues that draw them in and cause them to take ownership of science content by placing it in a real-life context.

F. Geometry in Construction Part 1
Scott Burke and **Tom Moore**, *Thompson School District, Loveland, Colorado*
In a revolutionary approach, an academic and a Career and Technical Education (CTE) teacher teamed to design rigorous mathematics courses taught through relevant project-based CTE curriculum. Standardized test scores have increased. Gender equity and enrollment are soaring, and discipline incidents are virtually a thing of the past. Replication of this program has begun in Colorado, Texas, Washington, Illinois, California, and South Dakota. Please join us or check us out online at: www.geometryinconstruction.org. We won't disappoint!

G. "Trolling" Through Science with Technology Applications
Robin Dehnel and **Jana Beth Lehman**, *San Angelo ISD*
For those of you who would rather be fishing, this session will fill your tackle box with technology applications that will lure your reluctant student into your net as we troll through the science TEKS.

H. Empowering Teachers in Three Easy Steps
Mary Hobbs and **Amy Moreland**, *Texas Regional Collaboratives*
Hear the results of four years of NSF-funded research on teacher empowerment as conducted by Dr. Mary Hobbs and Graduate Research Assistant, Amy Moreland. Data was collected from over 300 Texas science teachers (many TRC associated) via interviews and the Teacher Empowerment Survey online instrument. We will report on patterns we see in the data and discuss implications for teachers and those who work with them.

I. It Isn't Your Momma's Science Class
Sarah Kerr-Chapa, *Northeast ISD*
If you want innovative ways to teach your students science, this is the session for you. Explore interactive strategies to keep your students wanting more.

J. Helping Students to Measure Up! Teaching Length in the Primary Classroom
Jayne Rhodes, *San Perlita ISD;* **Michael Sweet**, *Pharr-San Juan-Alamo ISD*
In the 21st Century, it is vital that our students can measure up! Follow these fun and sequential activities to help your students develop a conceptual understanding of linear measurement. Even the youngest students can grasp the big ideas of measurement with these activities. You will leave with a CD and links to online activities.

K. Why Won't My Students Talk About Math?
Tracy Erbes, *Hitchcock ISD;* **Janet Vela**, *ESC Region 4*
How do you create a positive classroom community that encourages students to talk about their mathematical thinking? Join us as we explore strategies for laying the foundation for an engaging classroom where students feel safe to share and discuss their mathematical ideas.

L. The Fourth R: Reading, Writing, Arithmetic and ROCKETS
Mike Cable, *Anson ISD;* **Kayla Brooks**, *Trent ISD*
Few classroom projects generate as much excitement as rockets. The STEM foundations of rocketry provide exciting opportunities for authentic hands-on, minds-on experimentation. The activities are specifically tailored to address TEKS in grades 5-8. Curriculum guide on CD and other materials will be provided.

M. PLT with a Texas Twist
Bea Long and **Jill Brown**, *Clear Creek ISD;* **Dee Denny**, *Pasadena ISD*
Project Learning Tree Outstanding Educators (Casey Harris, Sally Wall and Bea Long) have selected 30 lessons from the PLT Pre-K–8 Activity Guide and have created supplemental lessons that are unique to Texas. All of the lessons are correlated to the new 2010 Science TEKS. Participants will be given a CD that contains all of the Texas Connection Lessons on PDF.

N. TAME & The Trailblazer Mobile Exhibit
Michael Nevels, *Texas Alliance for Minorities in Engineering*
The TAME Trailblazer is a 40-foot exhibit trailer that houses a variety of engineering and science exhibits and travels across the state. Visitors are invited to explore the hands-on activities and exhibits. The Trailblazer is a valuable tool in raising students' enthusiasm for science and math, and reinforcing basic skills. Take-away material can be accessed on the TAME website. The trailer is suitable for all ages but targets 3rd-7th graders.

WEDNESDAY, JUNE 30 - MORNING SESSION 3

TIME		PRESENTATIONS / ACTIVITIES		ROOM
10:45 - 11:45 a.m.	**SESSION 3**		**Level**	
	A	**Making Science Accessible to All Learners** Mullin	All *Science*	**Wedgwood** *Main Floor*
	B	**The TRC Mid-Career STEM Teacher Recruitment Program: Bringing New STEM Teachers to Texas Classrooms** Meyer/Moseley/Bilica	Leadership	**Bosque** *Main Floor*
	C	**Problem Solving with Panache!** Oefelein/Hester	Elementary *Math*	**Concho** *Main Floor*
	D	**Cosmology and Our Universe: Why Dark Energy, and Is it Real?** Urquhart/Ishak-Boushaki	Middle/High School *Science/Technology*	**Frio** *Main Floor*
	E	**Teach the Fun Way** Ahmed	Middle School *Math*	**Guadalupe** *Main Floor*
	F	**Geometry in Construction Part 2** Burke/Moore	Middle/High School *Math*	**Nueces** *Main Floor*
	G	**Wiki Science** Boutwell	Middle School *Science/Technology*	**Brazos** *Main Floor*
	H	**Using Google Earth in the Science Classroom** Sinclair/Oramous	Middle/High School *Science*	**San Antonio** *Lower Level*
	I	**The States of Matter** Cubillos-Dominguez/Keith	Elementary *Science*	**San Marcos** *Lower Level*
	J	**Engaging Math and Science Students Using Foldables** Humphreys/Marshall/Stehling	Middle/High School *Math/Science*	**Sabine** *Lower Level*
	K	**Taking the Fear Out of Investigation** Avila-Gray	Elementary *Science*	**Pecos** *Lower Level*
	L	**Don't Be Left In The Dark** Sweet	Elementary *Science*	**San Saba** *Lower Level*
	M	**Using Online Games to Teach Science** Miller	All *Science*	**Trinity** *Lower Level*
	N	**Tapestry of Time and Terrain** Paramoure/Baie	Middle School *Science*	**Rio Grande B** *Lower Level*
12:00 - 1:45 p.m.	LUNCH *Details below*			**Grand Ballroom** *Main Floor*
2:00 - 5:00 p.m.	Vendor Fair Set-up			**Rio Grande B** *Lower Level*

NOTES

WEDNESDAY, JUNE 30 - LUNCH PROGRAM

INTRODUCTION
Kamil A. Jbeily, Ph.D.
Executive Director, TRC

GREETINGS FROM THE TEXAS EDUCATION AGENCY
Norma Torres-Martinez
Deputy Associate Commissioner, Standards and Alignment

STATE OF SCIENCE AND MATH EDUCATION IN TEXAS
Kenn Heydrick, Ed.D.
Director of Science, TEA

Everly Broadway, Ed.D.
Director of Mathematics, TEA

Exhibit Awards Announcement

SESSION 3 - PRESENTATION DESCRIPTIONS

A. Making Science Accessible to All Learners
Kelly Mullin, *KIPP Austin Public Schools*
A quality science education is paramount in developing students that are ready to successfully navigate the challenges of the 21st Century. This presentation will examine current trends in student achievement and discuss methods for developing a science program that is accessible to all students. Response to Intervention (RTI) will be explored from the perspective that successful intervention begins in the core classroom.

B. The TRC Mid-Career STEM Teacher Recruitment Program: Bringing New STEM Teachers to Texas Classrooms
Janice Meyer, *The Texas A&M University System;* **Christine Moseley** and **Kim Bilica**, *The University of Texas at San Antonio*
In this session, participants will learn about the TRC's Mid-Career STEM teacher recruitment programs at The University of Texas at San Antonio and at The Texas A&M University System. Come find out how we are bringing new STEM teachers to Texas schools!

C. Problem Solving with Panache!
Patti Oefelein and **Jamie Hester**, *San Felipe Del Rio CISD*
Draw a picture, act it out, guess and check, look for a pattern…what? We all have problem solving strategies in place. But what about those types of problems that don't lend themselves to an equation or require a different style of solution? Find some new ideas for teaching the more "eccentric" forms of problem solving in the elementary classroom.

D. Cosmology and Our Universe: Why Dark Energy, and Is it Real?
Mary Urquhart and **Mustapha Ishak-Boushaki**, *The University of Texas at Dallas*
UT Dallas astrophysicists discuss some of the biggest topics in modern cosmology--why we know the universe is expanding, why it appears the expansion is accelerating, and what are current ideas about dark energy? Presenters will address the fundamental ideas of gravity, light, and redshift. Participants will receive CDs containing curriculum resources for explorations of the electromagnetic spectrum, dark matter, dark energy and more, including Dr. Urquhart's NASA-supported *Stars and Planets* curriculum for middle school.

E. Teach the Fun Way
Shaik Ahmed, *Alief ISD*
Learning should be fun! Explore the many middle school mathematics concepts that could be learned using just blocks. As students explore hands-on activities using these inexpensive manipulatives, they will learn and retain the mathematics while they think they are playing.

F. Geometry in Construction Part 2
Scott Burke and **Tom Moore**, *Thompson School District, Loveland, Colorado*
Part 2 will focus on specific hands-on activities from each respective program as examples of best practices. Additionally, participants will be introduced to preliminary action planning for HOW to replicate similar programs to generate similar success.

G. Wiki Science
Nikki Boutwell, *Clint ISD*
This session will target how teachers can integrate technology in the middle school science classroom through the use of Wikis. Create a space where students can always find the information about an assignment or lesson reducing wasted time researching. Wikis are a place where students can find peer-to-peer collaboration, interactive information, and promote mastery of concepts through information sharing.

H. Using Google Earth in the Science Classroom
Becky Sinclair, *Texas A&M University-Commerce;* **Jennifer Oramous**, *Wylie ISD*
Google Earth has multiple applications for teaching Earth Science. It is an engaging experience for all to explore many topics, such as supercontinents, plate tectonics, deep ocean imagery, other galaxies, and even more. Come and see how to engage your students with a wonderful resource, Google Earth.

I. The States of Matter
Jeanette Cubillos-Dominguez and **Liz Keith**, *El Paso ISD*
This session will include lessons on the three states of matter. These activities address the eight different intelligences in one lesson. Benefits all levels of learners from above grade level to English language learners.

J. Engaging Math and Science Students Using Foldables
Debbie Humphreys, Cindy Marshall and **Susan Stehling**, *ESC Region 3*
Dinah Zike's Foldables provide students a great tool to quickly organize, display, and arrange information, making it easier for students to grasp math and science concepts as well as master skills.

K. Taking the Fear Out of Investigation
Carla Avila-Gray, *Round Rock ISD*
Participants will receive a range of activity ideas that can help them economically, efficiently, and painlessly fulfill the student investigation recommendations from the 2010 TEKS. On their "Rediscovering Science Treasures" scavenger hunt, participants will receive a schoolyard map (with measurement guides), "collecting data" clues list, and graphic organizer to guide them from erosion to evaporation, past populations and adaptations towards success. Ideas for student-created hunts, collaborations, and presentations will be provided.

L. Don't Be Left In The Dark
April Sweet, *Round Rock ISD*
Learn how to get all of the new Scientific Investigation and Reasoning into your daily classroom. This presentation will incorporate Paige Keeley's strategies to identify student's misconceptions and how to turn the misconceptions into a scientific investigation. Teachers will have the opportunity to explore and use science notebooks during the scientific investigation.

M. Using Online Games to Teach Science
Leslie Miller, *Rice University Center for Technology in Teaching and Learning*
A growing number of adults and children play video games. Can we harness this enthusiasm for games to teach science content and process skills? The Rice University Center for Technology in Teaching and Learning has developed and tested four free online game environments that demonstrate multiple ways that online games can complement classroom instruction. In this presentation, both the underlying cognitive science and the research results will be presented.

N. Tapestry of Time and Terrain
Stef Paramoure, *ESC Region 13;* **Lyle Baie**, *Retired Petroleum Geologist*
An introduction to the USGS map, "A Tapestry of Time and Terrain." This digital map expresses the geologic story of mountain building, river erosion and deposition, and other events and processes that have shaped the land. It is the "most detailed and accurate portrait of the U.S. land surface, the ages of underlying rock with the addition of a fourth dimension, geologic time." Learn map basics and how to get a FREE FRAMED map for your school! A rolled map will be given away!

WEDNESDAY, JUNE 30 - AFTERNOON SESSION 4

TIME	PRESENTATIONS / ACTIVITIES			ROOM
2:15 - 3:15 p.m.	**SESSION 4**		**Level**	
	A	**ELPS in the Science Classroom** Botello	All *Science*	**Wedgwood** *Main Floor*
	B	**The Little Mathematician and the Supersonic Mnemonic Electronic Whiteboard** Hagood	Elementary *Math/Technology*	**Bosque** *Main Floor*
	C	**Suited for Spacewalking** Cubillos-Dominguez/Valdez	Elem./Middle School *Science*	**Concho** *Main Floor*
	D	**Down to Earth Science** Rutland	Elementary *Science*	**Frio** *Main Floor*
	E	**Transform the Classroom with Energy** Talkmitt/Howard	Middle School *Science*	**Guadalupe** *Main Floor*
	F	**BLT-Biotechnology for Teachers: An Overview** Sognier	Middle/High School *Science*	**Nueces** *Main Floor*
	G	**Xtreme Technology for Science Teachers** Schroeder/Sechelski	All *Science/Technology*	**Brazos** *Main Floor*
	H	**Overview of the Annual Performance Report** Sherron	Leadership	**San Antonio** *Lower Level*
	I	**Endeavor 2010 Mathematical Reasoning** Castellano/Garcia/Carrillo/Gurany/Soto	Middle/High School *Math*	**San Marcos** *Lower Level*
	J	**Making Math and Science Toteable** Flusche/Henry/Godi/Webb	Elementary *Math/Science*	**Sabine** *Lower Level*
	K	**Developing Mathematical Thinkers** White/Vela	Elementary *Math*	**Pecos** *Lower Level*
	L	**A "T" that Works for STEM Education: Best Practices Meets Integration** Schlueter	Middle/High School *STEM*	**San Saba** *Lower Level*
	M	**iPods in the Classroom** Hammonds	All *Science/Technology*	**Trinity** *Lower Level*
	N	**Journaling Manipulatives** King	Elem./Middle School *Science*	**Glass Oaks** *Access via Main Floor*
3:15 - 3:30 p.m.	BREAK			
3:30 - 4:45 p.m.	**GENERAL SESSIONS**			
	How Children Learn: Brain Research and Inquiry-based Science Ken Wesson - *Details on Page 4*			**Glass Oaks** *Access via Main Floor*
	Digital/Creative Media Careers Panel Keith Mitchell - *Details on Page 5*			**Grand Ballroom** *Main Floor*
	Green Tech Careers Panel Carol Fletcher - *Details on Page 5*			**Wedgwood** *Main Floor*
5:00 - 7:00 p.m.	**Vendor Fair with Reception** *Details on Page 5*			**Rio Grande B** *Lower Level*

NOTES

SESSION 4 - PRESENTATION DESCRIPTIONS

A. ELPS in the Science Classroom
Sandy Botello, *ESC Region 20*
Explore ways to increase achievement for English language learners using the English Language Proficiency Standards (ELPS) in the science classroom.

B. The Little Mathematician and the Supersonic Mnemonic Electronic Whiteboard
Glinda Hagood, *Frenship ISD*
Discover how to incorporate daily warm ups and lessons in an interactive format using an electronic whiteboard. Learn how to use the electronic whiteboard to spiral and differentiate math in the K-2 classroom.

C. Suited for Spacewalking
Jeanette Cubillos-Dominguez and **Jonathan Valdez**, *El Paso ISD*
Come in for an introduction of space programs and information about El Paso Astronaut Danny Olivas. Designing of mission patches, moon survival activity, moving in zero gravity and Newton's Laws. Can be integrated with math and language arts.

D. Down to Earth Science
Patricia Rutland, *Stockdale ISD*
Down to Earth Science is a collection of hands-on activities to reinforce and teach the agents of weathering and erosion.

E. Transform the Classroom with Energy
Susan Talkmitt, *Texas Tech University;* **Chris Howard**, *Lubbock ISD*
Engage students with simple, powerful activities covering energy concepts for middle school grades. Favorite activities address topics including energy transformations in living and non-living systems and encourage students to inquire as they seek patterns needed to solve simple problems.

F. BLT-Biotechnology for Teachers: An Overview
Marguerite Sognier, *The University of Texas Medical Branch, Galveston*
Put a biotechnology spin on your life sciences/biology classroom curricula with BLT-Biotechnology Lessons for Teachers, TEKS-aligned biotechnology content/activities!

G. Xtreme Technology for Science Teachers
Carolyn Schroeder, *Texas A&M-College Station;* **Joy Sechelski**, *College Station ISD*
Power up your classroom with interactive PowerPoint to get students motivated and involved. Learn how to use PowerPoint to the Xtreme, other than just for presentations. It's a way to go "live" and increase student participation without going "wild." You will walk away with free goodies and templates ready to share in your classroom and a head full of knowledge.

H. Overview of the Annual Performance Report
Todd Sherron, *Texas Regional Collaboratives*
Come learn how to use the online annual performance reporting system for the MSP program. This is for new and seasoned project directors. Bring your laptop and username/password. Forgot password? Logon before the session at http://apr.ed-msp.net/aprs.

I. Endeavor 2010 Mathematical Reasoning
Christine Castellano and **Kathleen Garcia,** *El Paso ISD;* **Luis Carrillo** and **Dora Gurany,** *Socorro ISD*
WARNING: This session may not be suitable for persons with heart conditions, pregnant, high blood pressure or back problems. Be prepared to engage in a hands-on experience of the UTEP TSTEM Center units: *Atlantis 2008 Proportional Reasoning* and *Discovery 2009 Linear Relationships*. Participants will gain knowledge of proportional reasoning and linear relationships through a sampling of the units (missions). Get ready to BLAST OFF!

J. Making Math and Science Toteable
Sara Flusche, *North Central Texas College;* **Tracy Henry, Dee Dee Godi** and **Ashley Webb**, *Gainesville ISD*
Join the NCTC Collaborative for a hands-on approach to integrating science, math, and literature. Participants will create their own 'Toteable' to use in the classroom.

K. Developing Mathematical Thinkers
Amanda White, *Hitchcock ISD;* **Janet Vela**, *ESC Region 4*
How do you get primary students engaged in real mathematical communication? How do you get primary students engaged in real mathematical problem solving? Join us as we explore strategies for creating a classroom focused on rich mathematical problem solving and communication.

L. A "T" that Works for STEM Education: Best Practices Meets Integration
Shawn Schlueter, *ESC Region 14*
Effective teaching strategies have been rigorously researched culminating in Robert Marzano's "Nine," but what should they look like in a technology-integrated classroom? Explore 21st Century learning resources geared for the STEM environment and related to best practices.

M. iPods in the Classroom
Roxanne Hammonds, *Southwest ISD*
What place do iPods have in the classroom? Our classrooms are filled with digital natives. Meet and engage students with the tools they use and are interested in today. Participants will receive a list of Apps that are useful in the classroom as well as a demonstration of some of the most popular education applications. Participants may bring their iPod Touch or iPhone to download Apps instantly.

N. Journaling Manipulatives
Angie King, *Robinson ISD*
Participants will receive hands-on manipulatives to help students collect, record, and analyze information in science journals.

THURSDAY, JULY 1 - MORNING SESSION 5

TIME		PRESENTATIONS / ACTIVITIES		ROOM
6:30 - 7:45 a.m.		BREAKFAST		**Grand Ballroom** *Main Floor*
8:00 - 9:15 a.m.		**GENERAL SESSION**		
		The Other Lessons: What Students Keep For Life Michael Starbird - *Details on Page 4*		**Grand Ballroom** *Main Floor*
9:30 - 10:30 a.m.		**SESSION 5**	**Level**	
	A	**Fun with Force and Motion** Lehman/Dehnel	Middle School *Science*	**Wedgwood** *Main Floor*
	B	**The Greedy Triangle Gets Composed** Borer/Segura/Meyer/Guedea/Garcia	Elementary *Math*	**Bosque** *Main Floor*
	C	**Overview of TEA's Educator and Student Policy Initiatives Special Projects** Trirogoff	Leadership	**Concho** *Main Floor*
	D	**Geometry in a Box** Pearson	Elementary *Math*	**Frio** *Main Floor*
	E	**Energy Flowing Through the Cycles** Hill/Duncan	Middle School *Science*	**Guadalupe** *Main Floor*
	F	**Science = Greater Proficiency for English Language Learners** Minter/Larralde	Middle School *Science*	**Nueces** *Main Floor*
	G	**Steering Mathematics with Integrating Technology** Allen	Elementary *Math/Technology*	**Brazos** *Main Floor*
	H	**Building Capacity: The Ripple Effect** Vela/White/Erbes	Leadership	**San Antonio** *Lower Level*
	I	**Engineering is Elementary: A Fun and Easy Approach to Designing Alarm Circuits** Janish	Elementary *Science*	**San Marcos** *Lower Level*
	J	**The Power of Language in Mathematics** Koske	All *Math*	**Sabine** *Lower Level*
	K	**The Art of Science** Presley	Elementary *Science*	**Pecos** *Lower Level*
	L	**What Is it Really Like to Live and Work in Space?** Yoder/Cochrane	Middle/High School *Math/Science*	**San Saba** *Lower Level*
	M	**Developing a Sense of Place** Ramirez/Olvera/Ramirez	Elem./Middle School *Science*	**Trinity** *Lower Level*
	N	**NASA Explorer Schools Pilot Project: What Determines a Planet's Climate?** Eddy/Kayani/Scheller/King/Davis	All *Science/Technology/ Careers*	**Glass Oaks** *Access via Main Floor*
10:30 - 10:45 a.m.		BREAK		

NOTES

SESSION 5 - PRESENTATION DESCRIPTIONS

A. Fun with Force and Motion

Jana Beth Lehman and **Robin Dehnel**, *San Angelo ISD*

In this presentation we will use simple, inexpensive toys to help students make a connection to the laws of force and motion. We will also compare how toys work on Earth vs. Space.

B. The Greedy Triangle Gets Composed

Brooke Borer, *Northside ISD;* **Loretta Segura**, *Southwest ISD;* **Jill Meyer,** *Judson ISD;* **Esmeralda Guedea**, *Edgewood ISD;* **Graciela Garcia**, *Archdiocese of San Antonio*

The Marilyn Burns book, *The Greedy Triangle*, will be used as a springboard to engage participants in composing polygons from triangles. Following two simple rules, participants will be challenged to compose as many triangles, quadrilaterals, pentagons, and hexagons as possible. Each polygon will be documented in a notebook image using a simple-to-teach technique.

C. Overview of Texas Education Agency's Educator and Student Policy Initiatives Special Projects

Felice Trirogoff, *Texas Education Agency*

TEA's Division of Educator and Student Policy Initiatives will highlight several of their current projects: a professional development video that will show districts and campuses' use of educational technology to improve student achievement; Texas Steps Up, an opportunity for local education agencies to invest their State Fiscal Stabilization Funds in education reform and ways to improve student achievement; Texas' teacher loan forgiveness program, and the Focus Forward conference, an opportunity for superintendents, principals, teachers and educator preparation programs to share best practices around emerging issues in the classroom.

D. Geometry in a Box

Angela Pearson, *Copperas Cove ISD*

Think inside the box! Join us for an opportunity to create a project that covers Objective 3 of the TEKS. The project will work as an introduction to Objective 3 overall, a journal as you go through Objective 3, and a quick informal assessment of how well your students grasped the concepts and content of Objective 3. This innovative approach to Objective 3 will have your students excited about geometry and learning while having fun and being creative.

E. Energy Flowing Through the Cycles

Ross Ann Hill, *Idalou ISD;* **Melissa Duncan**, *Frenship ISD*

Carbon, Lunar, Nitrogen, Rock and Water cycles will be introduced using fun activities, games and resources to engage middle school students. We will provide teachers with presentations and hands-on activities to effectively teach Earth cycles covered in middle school. The session will include active participation using board games, role-play models, songs, PowerPoints, Photo Story, and Jeopardy-type assessments. Teachers will be given resources to create their own materials to use in their classrooms.

F. Science = Greater Proficiency for English Language Learners

Jessie Minter, *Galveston ISD;* **Juana Larralde**, *Houston ISD*

Reach your English language learners with hands-on, project-based, sheltered approach, vocabulary-drenched science! Come get involved in activities that will show you how to be more effective in using C-scope's curriculum. Leave with strategies you can use and implement now!

G. Steering Mathematics with Integrating Technology

Susan Allen, *Hardin Jefferson ISD*

Steer your classroom by engaging students with mimio interactive technology. Experience mathematics in a way that energizes and captivates your students. Mimio Interactive will revolutionize the way you teach, collaborate, and even the way you think.

H. Building Capacity: The Ripple Effect

Janet Vela, *ESC Region 4;* **Amanda White** and **Tracy Erbes**, *Hitchcock ISD*

How do we build capacity of our mathematics teacher mentors in order to create a ripple effect in the world of mathematics education? Join us as we share how two days of TRC professional development impacted two third-year teachers and how these new teachers used their TRC experiences to impact the professional growth of their teammates.

I. Engineering is Elementary: A Fun and Easy Approach to Designing Alarm Circuits

Liz Janish, *Round Rock ISD*

The focus will be on applying the Engineering Design process to create alarm circuits and pathways through the concepts of electricity, energy, and circuits. The session will explore the "circuit language" of schematic diagram symbols and a detailed diagram of their switch connection points to create an alarm circuit.

J. The Power of Language in Mathematics

Leslie Koske, *ESC Region 14*

"You heard what I said, but not what I meant!" We assume that students who can text on their phones will have the ability to understand the formal mathematical language required to read and solve math problems. Create a vocabulary rich environment in your classroom, which scaffolds the students from clueless to competent!

K. The Art of Science

Lucinda Presley, *ICEE Success*

Howard Gardner, and other national experts on 21st Century success, emphasize the importance of integrating creative thinking skills with lessons in the state standards. See how this can be done by integrating such science TEKS as forces and motion, physical properties, energy, and sound with art and language arts. Design an inquiry-based investigation and invent a motorized sculpture that demonstrates these science concepts. Based on successful school programs produced in partnership with MIT's PIE project.

L. What Is it Really Like to Live and Work in Space?

Gloria Yoder, *Huntsville ISD;* **Michelle Cochrane**, *Magnolia ISD*

We will share NASA's hands-on activities that introduce both teachers and students to the effects of living and working in space. Through these activities, students will experience what it feels like to be an astronaut and learn about some of the long-term effects on the human body during long-duration spaceflight. Lesson plans for all activities will be provided as well as resources for teachers to gather more background material.

M. Developing a Sense of Place

Reynaldo Ramirez, Jr. and **Yvette Olvera**, *The University of Texas at Brownsville;* **Irma Ramirez,** *Los Fresnos CISD*

Place-based education is usually not considered. This presentation describes how the use of mapmaking with children helps to inspire a sense of place that supports their understanding of spatial relationships, which are important for the study of mathematics, science and social studies.

N. NASA Explorer Schools Pilot Project: What Determines a Planet's Climate?

Peggy Eddy, Ayesha Kayani, Jessica Scheller, Latarsha King and **Arlevia Davis**, *Aldine ISD*

What makes the climate of Earth more hospitable than the climate of other planets? Students engage in investigative processes to learn how human and natural factors influence the composition of Earth's atmosphere and help regulate Earth's energy budget. Participants will engage in a variety of hands-on activities that reflect what scientists and engineers do on a daily basis. They will develop hypotheses about relationships between different variables and test those relationships.

THURSDAY, JULY 1 - MORNING SESSION 6

TIME	PRESENTATIONS / ACTIVITIES			ROOM
10:45 - 11:45 a.m.	**SESSION 6**		**Level**	
	A	**Algebraic Habits of Mind (AHOM) as a Response to Intervention (RTI)** Giles	Elem./Middle School *Math*	**Wedgwood** *Main Floor*
	B	**Use of Technology in the Science Classroom** Stoll	High School *Science/Technology*	**Bosque** *Main Floor*
	C	**E-STEM** Eddy/Kayani/Scheller/Davis/King	Elementary *STEM*	**Concho** *Main Floor*
	D	**Misconceptions in Science** Thomas/Carson/Carson	All *Science*	**Frio** *Main Floor*
	E	**Why 1 is "one," 2 is "two," 3 is "three"…?** Johnson	Elementary *Math*	**Guadalupe** *Main Floor*
	F	**Creating a Presence for Science, A School Wide Systemic Change in Science Instruction** Osae	Elementary *Science*	**Nueces** *Main Floor*
	G	**Using Geogebra Software** Ghionzoli/Renteria	All *Math*	**Brazos** *Main Floor*
	H	**Meet TEKS and Explore Space Weather with a Texas-Built Space Mission** Urquhart/Hairston	Middle School *Science/Tech*	**San Antonio** *Lower Level*
	I	**New Science TEKS Puzzle: Critical Vertical Pieces** Decuir/Arledge	Elementary *Science*	**San Marcos** *Lower Level*
	J	**Graphic Organizers in Force and Motion Investigations** Talley/Schultz	All *Science/Engineering*	**Sabine** *Lower Level*
	K	**UBeats: BioMusic Curriculum for Elementary Grades** Gray	Elementary *Science*	**Pecos** *Lower Level*
	L	**Music, Movement, and Math…Oh My!** Garvin/Straley	Middle School *Math/Science*	**San Saba** *Lower Level*
	M	**XplorIt** Elms/Burke	All *Science/Outdoors*	**Trinity** *Lower Level*
	N	**Fostering Algebra and College and Career Readiness through TEA Initiatives** Moeller/Broadway	Leadership *Math*	**Glass Oaks** *Access via Main Floor*
12:00 - 2:30 p.m.	LUNCH • Nita Beth Camp Legacy Award • Awards and Prizes!			**Grand Ballroom** *Main Floor*

NOTES

SESSION 6 - PRESENTATION DESCRIPTIONS

A. Algebraic Habits of Mind as a Response to Intervention

Sandie Giles, *Tyler ISD*

This presentation will address the effects of implementing Mark Driscoll's Algebraic Habits of Mind (AHOM) as a Response to Intervention (RTI) treatment in Fourth Grade. Qualitative data on AHOM as a RTI trial were collected, and results addressing interpretations of student work, utilizing habits of mind for problem solving, and determining the effectiveness of AHOM for elementary student learning will be presented.

B. Use of Technology in the Science Classroom

Stacy Stoll, *Killeen ISD*

The use of technology in the classroom has become a basic need for the assessment and engagement of students. I have been using different forms of technology for over 10 years and have watched student engagement and class assessment scores rise with their use. This presentation will focus on the use of technology, such as: clickers, projection cameras, computers, and electronic whiteboards in a science classroom.

C. E-STEM

Peggy Eddy, Ayesha Kayani, Jessica Scheller, Arlevia Davis, and **Latarsha King**, *Aldine ISD*

E-STEM learning experiences require student to use everyday materials to design and construct solutions to engineering problems. Engineering careers associated with the problem-based experiences will be explored. The E-STEM learning experiences are TEKS based, hands-on, 5E Model lessons. Participants will receive a free E-STEM CD.

D. Misconceptions in Science

Staci Thomas, *Texas A&M University-Texarkana;* **Ronald Carson**, *Chapel Hill ISD;* **Sheri Carson**, *Pittsburg ISD*

A misconception is not knowing you don't know! There is a wide range of misconceptions regarding scientific topics that teachers must face with each lesson. In this session, we will discuss some general preconcepts and school-made misconceptions. We will also provide suggestions to diagnose misconceptions and emphasize correct scientific thinking.

E. Why 1 is "one," 2 is "two," 3 is "three"…?

Patricia Johnson, *Tyler ISD*

This presentation will describe an elementary mathematics lesson exploring the logic that exists in the Arabic algorithms. Students learned about the Arabic numbers and the angles that are within them. Student work and teaching suggestions will be presented.

F. Creating a Presence for Science, A School Wide Systemic Change in Science Instruction

Martin Osae, *Dallas ISD*

Participants will learn how to bring about a systemic change in science instruction at their elementary campuses. By placing a science advocate at each grade level, working in tandem with a campus science coach or science lead teacher, a strong presence for science is created at each elementary campus. Participants will also take a look at a threefold approach to teaching science to young children: 1. Developmentally Appropriate Practices (DAP), 2. The 5E Instructional Model, and 3. Questioning.

G. Using Geogebra Software

April Ghionzoli, *Brownsville ISD;* **Irma Renteria,** *Weslaco ISD*

In this presentation, we will explore Geogebra, a free and multi-platform dynamic software for all levels of education that joins geometry, algebra, tables, graphing, statistics and calculus. Participants will learn ways in which to incorporate Geogebra into the classroom. This innovative software may be adapted to any grade level, and is sure to increase your students' motivation and achievement.

H. Meet TEKS and Explore Space Weather with a Texas-Built Space Mission

Mary Urquhart and **Marc Hairston**, *The University of Texas at Dallas*

Learn about the layers of our atmosphere, scale in the Earth-Moon system, where space begins, and our dynamic Sun are all connected to space weather with the joint NASA/Air Force/UT Dallas CINDI project. Participants will create scale models of the atmosphere, the Earth-Moon system, see how to use air-powered paper rockets in an inexpensive rocket design competition and more. CDs with all resources, including our popular comic book in English and Spanish will be provided.

I. New Science TEKS Puzzle: Critical Vertical Pieces

Sue Ann Decuir and **DeAnne Arledge**, *Pflugerville ISD*

Examine the vertical alignment of the new TEKS by comparing hands-on investigations of several concepts in physical and earth science. Activities for each grade level will illustrate how students construct learning and build on experiences from year to year. Participants will receive materials for all workshop activities.

J. Graphic Organizers in Force and Motion Investigations

Terry Talley, *The University of Texas Medical Branch, Galveston;* **Nancy Schultz**, *Texas A&M University-Galveston*

Learn everything you ever wanted to know about the value of graphic organizers and writing valid conclusions! Get engaged in an interactive, hands-on study of force and motion taught through the story of *Sheep in a Jeep* by Nancy Shaw.

K. UBeats: BioMusic Curriculum for Elementary Grades

Patricia Gray, *Music Research Institute-University of North Carolina, Greensboro*

UBEATS: Universal BioMusic Education Achievement Tier in Science is a 3-year curriculum development project that focuses on the "science of music" for elementary grades 2 to 5. Two teams of in-service teachers comprised of science teachers and music teachers developed innovative modules for upper and lower elementary grades that conform to national science and music standards. The lessons feature inquiry-based learning that builds science-processing skills through investigations of the natural world's musicality.

L. Music, Movement, and Math…Oh My!

Tiffanie Garvin and **Robin Straley**, *Frenship ISD*

Brain-based research shows that students learn and retain more information when they are up and active. Join us for an engaging session and learn ways to incorporate music, movement and math strategies in middle school science and STEM lessons. Participants will leave with a variety of activities that maximize students' energy levels and improve their retention and retrieval of science and math information.

M. XplorIt

Sandra Elms and **Charlotte Burke**, *Ector ISD*

Teach valuable observation skills, science journaling and field study tools as you venture outside with your students. Help to make exploration of the outdoors a creative adventure. Give your students the ability to generate authentic products from their experiences in the field. This is a hands-on workshop that will equip you in the exploration and investigation of your own eco-region.

N. Fostering Algebra and College/Career Readiness through TEA Initiatives

Paula Moeller, *The University of Texas System,* and **Everly Broadway**, *Texas Education Agency*

Research suggests we examine the relationship between middle school achievement and high school outcomes. Participants in this session will learn how the state is shifting its focus to support algebra readiness in middle school and college and career readiness in high school in order to raise the anticipated results on End of Course assessments in future years.

36 REGIONAL SCIENCE COLLABORATIVES

REGION **SCIENCE COLLABORATIVE NAME**
Project Director / Phone Number / Email

1 **Region 1 Science Collaborative**/Edinburg
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3 **Region 3 Science Collaborative**/Victoria
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4 **Region 4 Science Collaborative**/Houston
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5 **Region 5 Science Collaborative**/Beaumont
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9 **Region 9 Science Collaborative**/Wichita Falls
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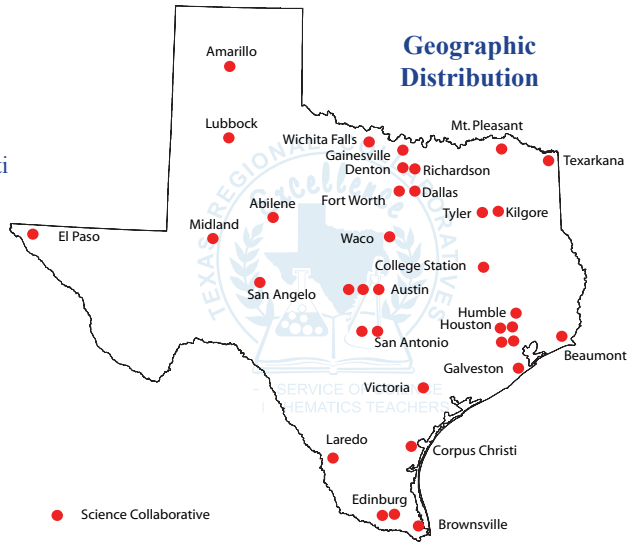
2009-2010 Regional Science Collaboratives Sites (36)



REGION SCIENCE COLLABORATIVE NAME *(continued)*

Project Director / Phone Number / Email

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17 **Region 17 Science Collaborative**/Lubbock
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18 **Region 18 Science Collaborative**/Midland
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19 **Region 19 Science Collaborative**/El Paso
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20 **Region 20 Collaborative**/San Antonio
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Tom Gadsden / 210-434-6711 x2233 / tgadsden@lake.ollusa.edu

2010-2011 New Science Collaboratives
UTSA Regional Science Collaborative/San Antonio
UT-M.D. Anderson Regional Science Collaborative/Smithville

*Please visit **www.theTRC.org** for updated Project Directors Contact Information*

** **LOUISIANA SCIENCE REGIONAL COLLABORATIVES**

Two Louisiana Regional Collaboratives are supported by the Shell-TRC Partnership:

- **LSU/Southern University Regional Collaborative**
- **Louisiana Tech University/Grambling State University Regional Collaborative**

24 REGIONAL MATHEMATICS COLLABORATIVES

REGION	MATHEMATICS COLLABORATIVE NAME *Project Director / Phone Number / Email*
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2	**Region 2 Mathematics Collaborative**/Corpus Christi *Gaye Glenn / 361-561-8569 / gaye.glenn@esc2.us* *Christine Robson / 361-561-8550 / christine.robson@esc2.us* *Toni Norrell / 361-561-8572 / toni.norrell@esc2.us*
3	**Region 3 Mathematics Collaborative**/Victoria *Cindy Marshall / 361-573-0731 / cmarshall@esc3.net*
4	**Region 4 Mathematics Collaborative**/Houston *Sharon Benson / 713-744-6815 / sbenson@esc4.net* *Shelley Bolen-Abbott / 713-744-6521 / sbolenabbott@esc4.net*
5	**Region 5 Mathematics Collaborative**/Beaumont *Kay Olds / 409-923-5412 / kolds@esc5.net*
6	**Region 6 Mathematics Collaborative**/Huntsville *Susan Bohan / 936-435-8211 / sbohan@esc6.net*
7	**Region 7 Mathematics Collaborative**/Kilgore *Liz Scott / 903-988-6768 / lscott@exch.esc7.net* *Jane Silvey / 903-988-6796 / jsilvey@exch.esc7.net* **UT-Tyler Regional Mathematics Collaborative**/Tyler *John Lamb / 903-566-7390 / jlamb@uttyler.edu* *Cindy Sherman / 903-566-7012 / csherman@uttyler.edu* *Nathan Smith / 903-566-7216 / nsmith@uttyler.edu*
8	**Region 8 Mathematics Collaborative**/Mount Pleasant *Shane Wright / 903-575-2733 / swright@reg8.net*
9	**Region 9 Mathematics Collaborative**/Wichita Falls *Sherri Lane / 940-322-6928 / sherri.lane@esc9.net*
10	**Region 10 Mathematics Collaborative**/Richardson *Debbie Dethrage / 972-348-1368 / debbie.dethrage@region10.org*
11	**Region 11 Mathematics Collaborative**/Ft. Worth *Patty Copeland / 817-740-7528 / pcopeland@esc11.net* **NCTC Regional Mathematics Collaborative**/Gainesville *Sara Flusche / 940-668-7731 x4332 / sflusche@nctc.edu* *Lisa Bellows / 940-668-4252 / lbellows@nctc.edu*
12	**Region 12 Mathematics Collaborative**/Waco *Jenny Dixon / 254-297-1272 / jdixon@esc12.net* *Charla Rudd / 254-297-1126 / crudd@esc12.net* *Becky Ralston / 254-297-1114 / bralston@esc12.net*
13	**Region 13 Mathematics Collaborative**/Austin *Carol Gautier / 512-919-5148 / Carol.Gautier@esc13.txed.net*
14	**Region 14 Mathematics Collaborative**/Abilene *Kathy Hale / 325-675-8679 / khale@esc14.net* *Kayla Swanzy / 325-675-8679 / kswanzy@esc14.net*
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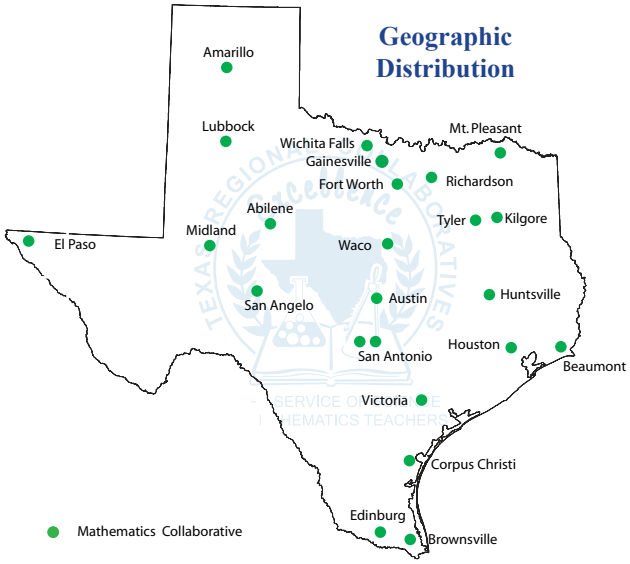
16	**Region 16 Mathematics Collaborative**/Amarillo *Angie Watson / 806-677-5135 / angie.watson@esc16.net*
17	**Region 17 Mathematics Collaborative**/Lubbock *Karen Marshall / 806-281-5806 / kmarshall@esc17.net*
18	**Region 18 Mathematics Collaborative**/Midland *James Collett / 432-567-3220 / jcollett@esc18.net*
19	**Region 19 Mathematics Collaborative**/El Paso *Veronica Hernandez / 915-780-6512 / vhernandez@esc19.net*
20	**Region 20 Mathematics Collaborative**/San Antonio *Kimberly Faircloth / 210-370-5496 /kimberly.faircloth@esc20.net* *Tori Austin / 210-370-5200 / tori.austin@esc20.net* **OLLU Regional Mathematics Collaborative**/San Antonio *Karen Harrower / 210-434-6711 / harrk@lake.ollusa.edu*

2009-2010 Regional Mathematics Collaboratives Sites (24)



2010-2011 New Mathematics Collaboratives

Lake Houston Regional Mathematics Collaborative/Humble
UTSA Regional Mathematics Collaborative/San Antonio
UHCL Regional Mathematics Collaborative/Houston

*Please visit **www.theTRC.org** for updated Project Directors Contact Information*

STATE AND FEDERAL PARTNERS

Texas Education Agency

The University of Texas at Austin

U.S. Department of Education

National Science Foundation

STATEWIDE CORPORATE AND FOUNDATION PARTNERS

AT&T Foundation

El Paso Corporation

The Cynthia and George Mitchell Foundation

Toyota USA Foundation

PROJECT CONTRIBUTORS

Abilene Education Foundation • Advanced Micro Devices
The Bob Bullock Texas State History Museum • Central West Texas Charitable Foundation/Jack Ramsey
Community Foundation of Abilene/Bob and Maggy Morford • Dian Graves Owen Foundation
Eleanor and Robert Hoppe Endowment DA Fund • J.E. Connally/Virginia H. Boyd
Morehead-Welborn LLP • Robert Gooch • Rockwell Fund
Sam E. and Ann Barshop • Scott Taliaferro, Jr. • Sydney E. Niblo
Walter F. Johnson • William Wright Jr. • Zachry Group, Inc.

LOUISIANA REGIONAL COLLABORATIVES PARTNERS

Louisiana State University, *Baton Rouge*
Southern University, *Baton Rouge*
Louisiana Tech University, *Ruston*
Grambling State University, *Grambling*

TEXAS REGIONAL COLLABORATIVES

Who We Are

The Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching (TRC) is an award-winning statewide network of sixty P-16 partnerships that provide sustained and high intensity professional development to P-12 teachers of science and mathematics across the state. This infrastructure of over 56 institutions of higher education collaborating with the Texas Education Agency, Education Service Centers, school districts, and business partners, has an 19-year track record of designing and implementing exemplary professional development using research-based instructional models, materials, and best practices.

Our Mission

To provide Texas science and mathematics teachers with support systems of scientifically researched, sustained, and high intensity professional development and mentoring to assist them in the successful implementation of the Texas Essential Knowledge and Skills (TEKS). TRC programs equip teachers with the knowledge and skills to engage students in meaningful science and mathematics learning experiences. Activities are designed to improve students' scientific, mathematical and technological literacy, and inspire them to pursue science and engineering related careers.

Achievements

Served over two million students across Texas through improved instruction and performance of participating teachers; developed the leadership capacity of approximately 17,000 Science Teacher Mentors (STMs) through sustained and high intensity professional development. These STMs are in turn sharing their experiences with thousands of teachers through mentoring, peer coaching, technical assistance, and workshops at the campus, district, and regional levels. In addition, approximately 1,000 Mathematics Teacher Mentors (MTMs) have received sustained and high intensity professional development sponsored by the Texas Education Agency, and supported several thousand additional math teachers with mentoring and outreach. Science and mathematics teachers in almost all of the State's 254 counties have been the beneficiaries of this extensive statewide network.

Values

- We **serve** our teachers and students.
- We **treasure** our people.
- We **operate** with integrity.
- We **reward** our partners.
- We **contribute** to systemic reform and to the community.

Background Information and History

In 1991, tremendous science education reform activities were underway across Texas and the nation. Changes necessitated that teachers provide science instruction in fields for which they were not prepared. Dr. Kamil A. Jbeily, then at the Texas Education Agency, initiated a series of regional meetings across the state to explore ways to create support systems of professional development for Texas science teachers. The meetings included representatives from education service centers, colleges and universities, school districts, business and industry, and institutions of informal education. The goal was to create regional partnerships built on collaboration and cost-sharing that provided science teachers with relevant, sustained, high-intensity professional development. These P-16 partnerships, with federal funding from the Dwight D. Eisenhower Science Professional Development Program, developed into the statewide network that is now the Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching.

On March 2, 1996, with the reorganization of the Texas Education Agency, the statewide administrative office of the Texas Regional Collaboratives (TRC) was moved, under a TEA-UT partnership agreement to the Science Education Center, now the Center for Science and Mathematics Education at The University of Texas at Austin. The program has enjoyed support from a wide range of partners including the U.S. Department of Education Eisenhower Grants Program, the Texas Education Agency, the National Science Foundation, and a number of corporate supporters including AT&T Foundation, Shell Oil Company, the Toyota USA Foundation, The Cynthia and George Mitchell Foundation, El Paso Corporation, and others. In addition, over fifty business and community partners support activities of the Collaboratives at the regional level.

In March 2006, through a historic $1.0 Million gift from Shell, two Louisiana Regional Collaboratives prototypes modeled after the TRC, commenced their activities in the service of Louisiana science teachers. In July 2006, the TRC launched a new initiative supported by Math and Science Partnership funding through the Texas Education Agency to provide high quality professional development to mathematics teachers across Texas. After a competitive process, grants were awarded to 20 Regional Collaboratives for Excellence in Mathematics Teaching.

To date, the Texas Regional Collaboratives have served over 16,000 science teachers and 16,500 mathematics teachers, who in turn have shared their knowledge with other teachers at the district, regional, and state levels. The long-range goal of the Regional Collaboratives is to continuously (1) enhance the quality of science and mathematics teaching in Texas through Professional Development Academies and inter-regional collaboration; (2) increase the number of qualified science and mathematics educators by building the leadership capacity of teachers to mentor and serve a larger number of teachers; and (3) improve accountability of the system by evaluating the impact of the professional development on teachers' knowledge and skills, their performance in the classroom, and on student achievement.

The Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching program has received commendations from the U.S. Department of Education, policy makers, state legislators, and business partners. The Program was inducted into the Texas Science Hall of Fame on January 17, 2000, and was recognized by the Governor, the Senate, and House of Representatives on January 16, 2001 for distinguished achievements and contributions to supporting education reform.

TRC is sponsored by a variety of state, federal, and corporate partners, and is supported by The University of Texas at Austin.

TEXAS REGIONAL COLLABORATIVES TEAM

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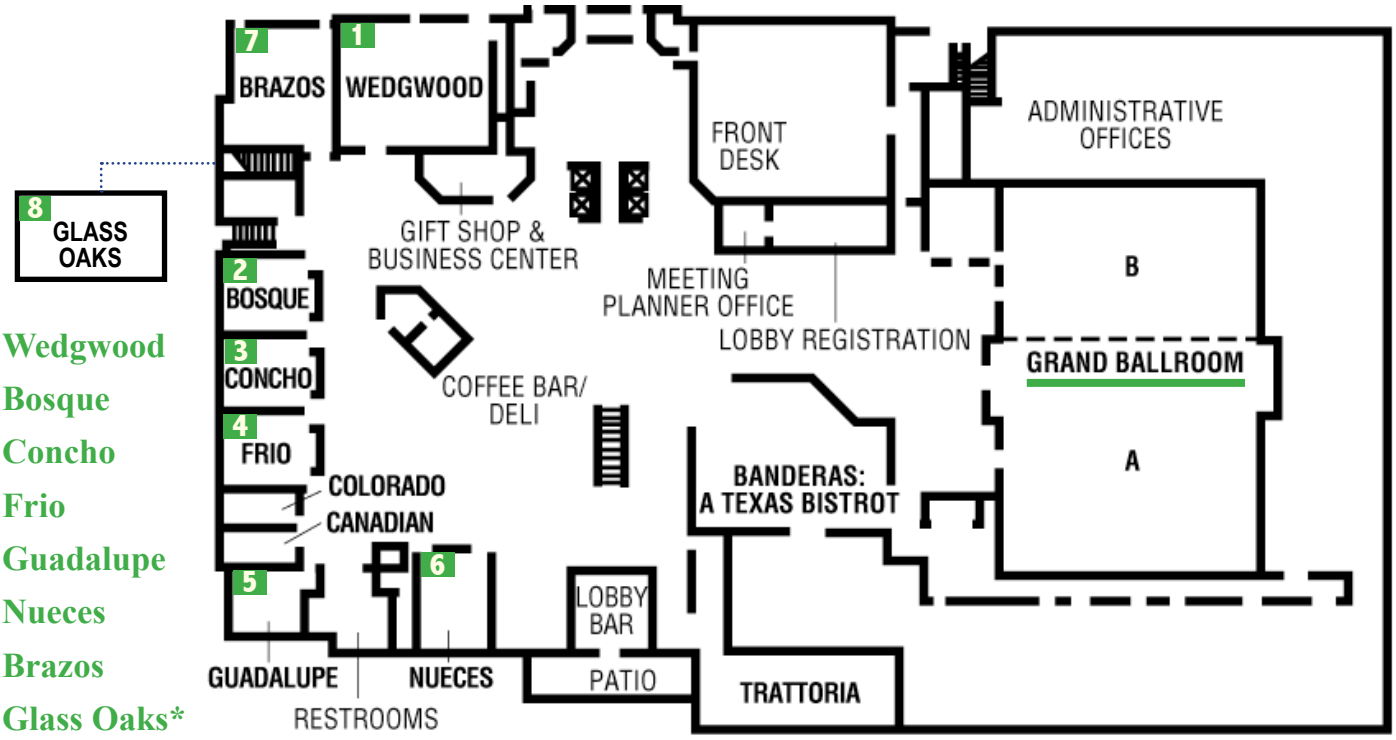
MAIN FLOOR

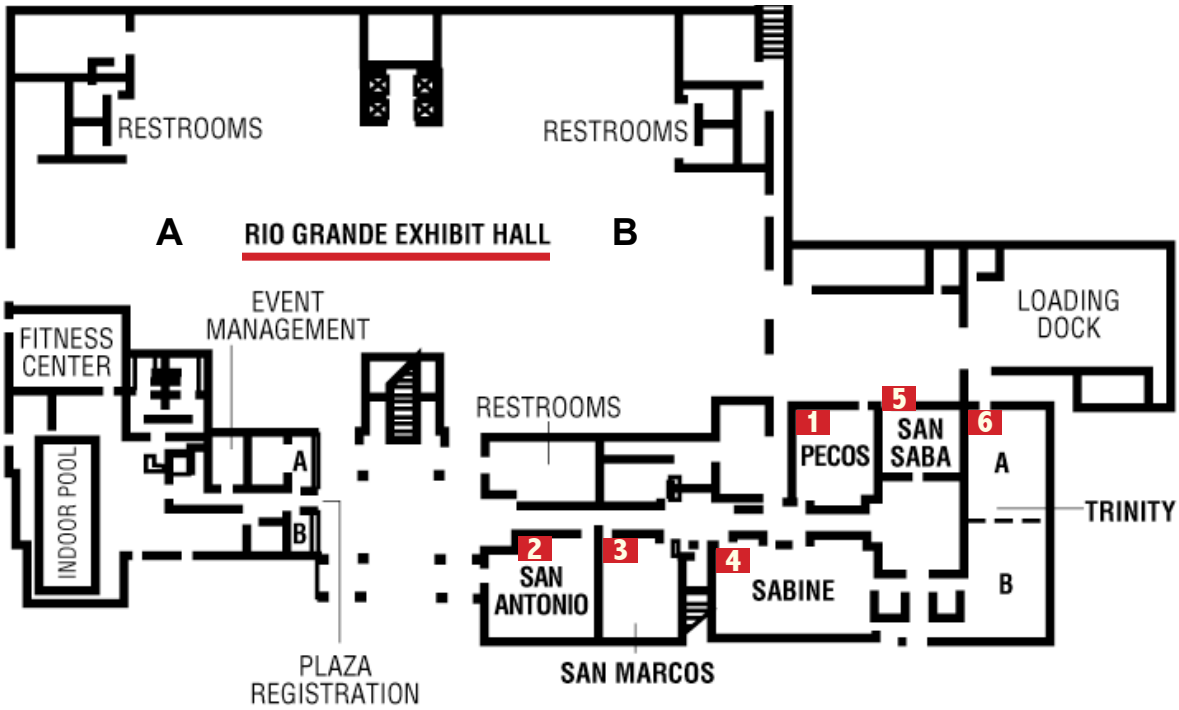
1. Wedgwood
2. Bosque
3. Concho
4. Frio
5. Guadalupe
6. Nueces
7. Brazos
8. Glass Oaks*



** **Glass Oaks** is the building located to the right of the main hotel. You access it by walking outside of the doors on the Atrium level (behind AustinBytes), down the stairs and enter through the doors on the left.*

LOWER LEVEL

1. Pecos
2. San Antonio
3. San Marcos
4. Sabine
5. San Saba
6. Trinity



WEDNESDAY EVENING OPTIONAL ACTIVITIES

ARBORETUM AREA

Within walking distance

RESTAURANTS

Amy's Ice Cream
Eddie V's Edgewater Grille
Kenobi Sushi
Macaroni Grill
Manuels
Serranos
The Cheesecake Factory
Wiki Wiki Teriyaki
Z' Tejas

SHOPPING

Banana Republic
Barnes and Noble Booksellers
Bath and Body Works
Chico's
Express
The Gap
Just Add Water
Nine West
Pottery Barn
Restoration Hardware
Sunglass Hut

SHOPPING MALLS

The Domain - 11410 Century Oaks Terrace (4 miles)
Highland Mall - 6001 Airport Blvd (7 miles)
Lakeline Mall - 11200 Lakeline Mall Dr (8 miles)
Barton Creek Mall - 901 S. Capital of Texas Hwy (10 miles)

TRANSPORTATION TO TOWN

Yellow Cab Austin
Fare estimate from Renaissance to 6th Street District is about $30 one way.
512-452-9999

RECREATION & ENTERTAINMENT

The Alamo Drafthouse - Village
2700 W. Anderson Ln. – Movies and meals. Eat and drink while you watch.
www.drafthouse.com

Dave and Busters
9333 Research Blvd. – Dining and giant arcade.
www.daveandbusters.com

Main Event
13301 N. Highway 183 – Family fun center.
www.maineventusa.net

Broken Spoke
3201 South Lamar – Country music and dancing.
www.brokenspokeaustin.tx.com

Lone Star River Boat
208 Barton Springs Rd. – River cruise with dinner.
www.lonestarriverboat.com

Bats Under Congress Bridge
100 Congress Avenue – Bat viewing at dusk.
www.austintexas.org

Highland Lanes Bowling Alley
8909 Burnet Road
www.highlandlanes.com

TRC STAFF RESTAURANT RECOMMENDATIONS

Chuy's – 11680 Research Blvd.
Cover 3 – 2700 W. Anderson Ln., Suite 202
Curra's Grill – 614 East Oltorf St.
Freddie's Place – 1703 South First St.
Hey Cupcake – 5530 Burnet Rd.
Hoover's Cooking– 13376 Research Blvd.
Hula Hut – 3825 Lake Austin Blvd.
Iron Cactus – 10001 Stonelake Blvd.
Juan in a Million – 2300 East Cesar Chavez St.
Katz's Deli – 6th Street and Rio Grande
Maiko Sushi Lounge – 311 West 6th St.
P.F. Chang's China Bistro – 10114 Jollyville Rd.
Rudy's Country Store & BBQ – 11570 Research Blvd.
Satay Restaurant – 3202 West Anderson Lane, Suite 205
Shady Grove – 1624 Barton Springs Rd.
The County Line BBQ – 5204 FM 2222
The Upper Crust Bakery & Café – 4508 Burnet Rd.
Threadgill's – 6416 North Lamar
Torchy's Tacos – 4211 Spicewood Springs Rd.
Trudy's North Star – 8820 Burnet Rd.
Trulucks – 10225 Research Blvd., Suite 4000

TUESDAY June 29	A	B	C	D	E	F
	Wedgwood *Main Floor*	**Bosque** *Main Floor*	**Concho** *Main Floor*	**Frio** *Main Floor*	**Guadalupe** *Main Floor*	**Brazos** *Main Floor*
10:00 - 5:00 p.m.	**Registration** -- Rio Grande Foyer, *Lower Level*					
10:00 - 5:30 p.m.	**Gallery Showcase Set-up** -- Rio Grande A , *Lower Level*					
12:00 - 2:00 p.m.	**Opening Luncheon and Program** -- Rio Grande B, *Lower Level*					
2:30 - 4:00 p.m. **SESSION 1**	NASA Education: Explore, Discover, and Understand **STEM**	Formative Assessment Doesn't Have to Be boring! **S/T**	Basic Electricity: Build Your Own Motor **S/T**	5E Instructional Model - What Does it Look Like in the Math... **M**	A Natural Approach to Conquering Test Anxiety **M**	Design-Based Science and Math **STEM**
5:30 - 7:00 p.m.	**Showcase and Reception** -- Rio Grande A, *Lower Level*					
7:00 p.m.	**Dinner and Program** -- Grand Ballroom, *Main Floor*					

WEDNESDAY June 30	A	B	C	D	E	F
	Wedgwood *Main Floor*	**Bosque** *Main Floor*	**Concho** *Main Floor*	**Frio** *Main Floor*	**Guadalupe** *Main Floor*	**Nueces** *Main Floor*
6:30 - 7:45 a.m.	**Breakfast** -- Grand Ballroom - *Main Floor*					
8:00 - 9:15 a.m.	**General Session** -- Grand Ballroom, *Main Floor* *The Science-Literacy Connection* - Michael Klentschy					
9:30 - 10:30 a.m. **SESSION 2**	NASA Explorer Schools **S**	Fostering Algebraic Thinking in the Middle Grades **M**	"SUM"MER FUN: Science Unites Mathematically **M/S**	Transparent Journaling **S**	Engaging Students in Ethical Conversation **S/C**	Geometry in Construction Part 1 **M**
10:30 - 10:45 a.m.	*Break*					
10:45 - 11:45 a.m. **SESSION 3**	Making Science Accessible to All Learners **S**	The TRC Mid-Career STEM Teacher Recruitment... **L**	Problem Solving with Panache! **M**	Cosmology and Our Universe: Why Dark Energy and Is it Real? **S/T**	Teach the Fun Way **M**	Geometry in Construction Part 2 **M**
12:00 - 1:45 p.m.	**Lunch** --- Grand Ballroom					
2:15 - 3:15 p.m. **SESSION 4**	ELPS in the Science Classroom **S**	The Little Mathematician and the Supersonic Mnemonic... **M/T**	Suited for Spacewalking **S**	Down to Earth Science **S**	Transform the Classroom with Energy **S**	BLT-Biotechnology for Teachers **S**
3:15 - 3:30 p.m.	*Break*					
3:30 - 4:45 p.m.	**General Session/21st Century Careers Panels** - *How Children Learn: Brain Research and Inquiry-based Science* - Kenneth Wesson -- Glass Oaks, *Via Main Floor* - *Digital/Creative Media Careers Panel* - Keith Mitchell -- Grand Ballroom, *Main Floor* - *Green Tech Careers Panel* - Carol Fletcher -- Wedgwood, *Main Floor*					
5:00 - 7:00 p.m.	**Vendor Fair** - *Light Refreshments will be provided* -- Rio Grande B, *Lower Level*					

THURSDAY July 1	A	B	C	D	E	F
	Wedgwood *Main Floor*	**Bosque** *Main Floor*	**Concho** *Main Floor*	**Frio** *Main Floor*	**Guadalupe** *Main Floor*	**Nueces** *Main Floor*
6:30 - 7:45 a.m.	**Breakfast** -- Grand Ballroom, *Main Floor*					
8:00 - 9:15 a.m.	**General Session** -- Grand Ballroom, *Main Floor* *The Other Lessons: What Students Keep For Life* - Michael Starbird					
9:30 - 10:30 a.m. **SESSION 5**	Fun with Force and Motion **S**	The Greedy Triangle Gets Composed **M**	Overview of TEA's Educator and Student Policy Initiatives... **L**	Geometry in a Box **M**	Energy Flowing Through the Cycles **S**	Science = Greater Proficiency for English Language Learners... **S**
10:30 - 10:45 a.m.	*Break*					
10:45 - 11:45 a.m. **SESSION 6**	Algebraic Habits of Mind as a Response to Intervention... **M**	Use of Technology in the Science Classroom **S/T**	E-STEM **STEM**	Misconceptions in Science **S**	Why 1 is "one," 2 is "two," 3 is "three"…? **M**	Creating a Presence for Science, A School Wide Systemic... **S**
12:00 - 2:30 p.m.	**Lunch** --- Grand Ballroom					

LEGEND

	Elementary
	Elementary/Middle School
	Middle School
	Middle/High School
	High School
	All Grade Levels

SCHEDULE AT-A-GLANCE

Texas Regional Collaboratives Sixteenth Annual Meeting

June 29 - July 1, 2010

G	H	I	J	K	L
San Antonio *Lower Level*	**San Marcos** *Lower Level*	**Sabine** *Lower Level*	**Pecos** *Lower Level*	**San Saba** *Lower Level*	**Glass Oaks** *Via Main Level*
Measuring the Age of the Universe From Your Own... **S**	Hickory Dickory Dock: The Pendulum Runs... **M**	Elementary Math Boot Camp **M**	VAK: (Visual, Auditory, Kinesthetic)... **S**	Physical Science Activities for Young... **S**	TOLC and Project Share **T**

G	H	I	J	K	L	M	N
Brazos *Main Floor*	**San Antonio** *Lower Level*	**San Marcos** *Lower Level*	**Sabine** *Lower Level*	**Pecos** *Lower Level*	**San Saba** *Lower Level*	**Trinity** *Lower Level*	**Rio Grande B** *Lower Level*
"Trolling" Through Science with Technology... **S**	Empowering Teachers in Three Easy Steps **L**	It Isn't Your Momma's Science Class **S**	Helping Students to Measure Up! **M**	Why Won't My Students Talk About Math? **M**	The Fourth R-... ROCKETS **STEM**	PLT with a Texas Twist **S**	TAME & The Trailblazer Mobile Exhibit **S**
Wiki Science **S/T**	Using Google Earth in the Science Classroom **S**	The States of Matter **S**	Engaging Math and Science Students Using Foldables **M/S**	Taking the Fear Out of Investigation **S**	Don't Be Left In The Dark **S**	Using Online Games to Teach Science **S**	Tapestry of Time and Terrain **S**
Xtreme Technology for Science Teachers **S/T**	Overview of the Annual Performance Report **L**	Endeavor 2010 Mathematical Reasoning **M**	Making Math and Science Toteable **M/S**	Developing Mathematical Thinkers **M**	A "T" that Works for STEM Edu... **STEM**	iPods in the Classroom **S/T**	Journaling Manipulatives **S**

G	H	I	J	K	L	M	N
Brazos *Main Floor*	**San Antonio** *Lower Level*	**San Marcos** *Lower Level*	**Sabine** *Lower Level*	**Pecos** *Lower Level*	**San Saba** *Lower Level*	**Trinity** *Lower Level*	**Rio Grande B** *Lower Level*
Steering Mathematics with Integrating Tech... **M/T**	Building Capacity: The Ripple Effect **L**	Engineering is Elementary: A Fun and Easy Approach... **S**	The Power of Language in Mathematics **M**	The Art of Science **S**	What Is it Really Like to Live and Work in Space? **M/S**	Developing a Sense of Place **S**	NASA Explorer Schools Pilot Project... **S/T/C**
Using Geogebra Software **M**	Meet TEKS and Explore Space Weather with a Texas... **S/T**	New Science TEKS Puzzle: Critical Vertical Pieces **S**	Graphic Organizers in Force and Motion... **S/E**	UBeats: BioMusic Curriculum for Elem... **S**	Music, Movement, and Math…Oh My! **M/S**	XplorIt **S/O**	Fostering Algebra and College and Career... **M/L**

S	Science
T	Technology

E	Engineering
M	Mathematics

C	Careers
O	Outdoors

L	Leadership

TEACHING AND MENTORING EXCELLENCE AWARDS

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UT Center for Science and Mathematics Education

Mathematics Mentoring Excellence Award

The Cynthia and George Mitchell Foundation

Science Teaching Excellence Award

PERSONALIZED SCHEDULE

TUESDAY, June 29	
10:00 a.m. - 5:00 p.m.	**Registration** -- Rio Grande Foyer, *Lower Level*
10:00 a.m. - 5:30 p.m.	**Gallery Showcase Set-up** -- Rio Grande A, *Lower Level*
12:00 - 2:00 p.m.	**Opening Luncheon and Program** -- Rio Grande B, *Lower Level*
2:30 - 4:00 p.m. **SESSION 1**	
5:30 - 7:00 p.m.	**Showcase and Reception** -- Rio Grande A, *Lower Level*
7:00 p.m.	**Dinner and Program** -- Grand Ballroom, *Main Floor*

WEDNESDAY, June 30	
6:30 - 7:45 a.m.	**Breakfast** -- Grand Ballroom, *Main Floor*
8:00 - 9:15 a.m.	**General Session** -- Grand Ballroom, *Main Floor* *The Science-Literacy Connection* - Michael Klentschy
9:30 - 10:30 a.m. **SESSION 2**	
10:30 - 10:45 a.m.	*Break*
10:45 - 11:45 a.m. **SESSION 3**	
12:00 - 1:45 p.m.	**Lunch** -- Grand Ballroom, *Main Floor*
2:15 - 3:15 p.m. **SESSION 4**	
3:15 - 30 p.m.	*Break*
3:30 - 4:45 p.m.	**General Session/21st Century Careers Panels** - *How Children Learn: Brain Research and Inquiry-based Science* - Kenneth Wesson -- Glass Oaks - *Digital/Creative Media Careers Panel* - Keith Mitchell -- Grand Ballroom, *Main Floor* - *Green Tech Careers Panel* - Carol Fletcher -- Wedgwood, *Main Floor*
5:00 - 7:00 p.m.	**Vendor Fair** - *Light Refreshments will be provided* -- Rio Grande B, *Lower Level*

THURSDAY, July 1	
6:30 - 7:45 a.m.	**Breakfast** -- Grand Ballroom, *Main Floor*
8:00 - 9:15 a.m.	**General Session** -- Grand Ballroom, *Main Floor* *The Other Lessons: What Students Keep For Life* - Michael Starbird
9:30 - 10:30 a.m. **SESSION 5**	
10:30 - 10:45 a.m.	*Break*
10:45 - 11:45 a.m. **SESSION 6**	
12:00 - 2:30 p.m.	**Lunch** -- Grand Ballroom, *Main Floor*

Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching

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