

Sixth Annual San Antonio Science and Mathematics Saturday

PROGRAM

**Registration/Check-In/
Continental Breakfast**

7:00 am – 7:50 am

Seminar Session 1

8:00 am – 9:00 am

Science
Grades 3-8

Featured Speaker

Dr. Paul Webb
CG 201

Integrated strategies approach to promoting science literacy

This paper reports on an integrated teaching and learning approach that incorporates specific reading, writing, talking, doing, arguing and presentation strategies to promote scientific literacy via authentic classroom investigations.

Mathematics
Grades 6-12

Sheryl Carlile
CAC 204

Using Nets to Support Surface Area Formulas

Hands on activities and strategies that support the diverse populations in our math classrooms.

Science
Grades 6-8

Karen Harris & Deborah Pledger
CAC 344

Come Play With Us!

Use old school games to create new school activities for teaching and assessment.

Mathematics
Grades 6-8

Elsa Ruiz
CAC 220

The 100 Penny Box: Literature in Mathematics

Using the "100 Penny Box" by Sharon Bell Mathis, a hands-on approach to teach volume, estimating, measuring and problem-solving will be presented using cooperative learning; integrating reading, history, and mathematics.

Science & Mathematics
Grades 3-8

Carole Rylander
CAC 219

Integrate Math and Science

This is a collection of activities that integrate the math and science TEKS and have been done successfully in fifth grade classroom. The students work collaboratively to design, construct, and participate in a variety of activities. This workshop will provide an overview on the activities that allow the students to perform real world problem solving activities in the areas of math and science. Many of the activities incorporate technology. In addition, classroom management will be discussed.

Science
Grades 6-12

Robert Friedrich
CAC 242
(Repeats Session 4)

Using Moodle to Enhance Science Writing and Class Discussion

Moodle is a free software program that allows teachers to create an online classroom space. We used Moodle for the discussion component of a biotechnology and bioethics course and found it to be a powerful tool for getting students to practice written expression of science concepts.

Mathematics
Grades P-5

Mark Gorlick
CAC 207
(Repeats Session 2)

Math Technology: The Next Generation Math Technology for This Generation!!!

The presentation will focus in on Math Technology that has been developed to enhance mathematical conceptual development in elementary students. Emphasis will be not only be on technology but the Visual Component of mathematical understanding.

Mathematics
Grades P-5

Mindy LaBernz
CAC 240
(Repeats Session 4)

Think Math! Think Fun!

This interactive workshop features activities designed to pique the natural curiosity of children engaged in math learning. While highlighting the TEKS and TAKS objectives, the focus of this workshop is on helping teachers connect problem-solving, skill building, and conceptual development in the math classroom. Students and teachers alike will Think Math! Think Fun! with the problems and puzzles provided in this workshop!

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Michelle Mitchell
CAC 220
(Repeats Session 4)

Zoo Project

This activity uses customary measurement to construct a zoo. A project your students will love while learning about the ruler along with using their creativity. Also can be modified using scale factor for your advanced or GT students.

Mathematics
Grades 9-12

Lista Dailey Schwarz
CAC 221
(Repeats Session 2)

Vocabulary in the High School Classroom

What content and context vocabulary words are on the TAKS tests? Do your students know? Do you know? This presentation reviews the past 5 released TAKS tests for 9th, 10th, and 11th grade levels. The review is organized by objectives. The question at hand is if teachers are aware of the vocabulary on the actual tests, include a word wall in their room and incorporate student made material will there be a significant difference in their scores.

Science & Mathematics
Grades 6-12

Tammy Neal
CAC 243
(Repeats Session 3)

Denso-Man

It's clay! It's popsicle sticks! No, it's Denso Man! What a fun, hands on math, science, and health activity? Denso Man covers Math TEKS using measurement and division; Science TEKS with measurement of volume/mass/density, proper use of lab equipment; and Health TEKS dealing with determining percent body fat.

Seminar Session 2

9:15 am – 10:15 am

Science
Grades P-5

Roger Kramer
VATC 120

Safety in Elementary Science

Learn how to keep you and your students safe as you teach great science in class and in the field.

Science
Grades K-2

Kaz Kuminski
CAC 243

FOSS for K-2

Join us for a morning of hands-on, inquiry based science featuring the FOSS, Full Option Science System. Participants will be actively engaged in a series of elementary science investigations integrating reading, writing, and math while addressing our state TAKS/TEKS.

Science
Grades P-12

Rosemary Martin
CAC 343

Cuttin' Up in Science

Come see how these low-cost colorful manipulatives engage students while making them think at high levels. See how differentiation in do-able! These TEKS correlated materials can help with learning, reviewing, tutoring, assessing, or enrichment as students use process skills to organize and remember content.

Mathematics
Grades P-5

Jim Wilkerson
CAC 200

TAKS Centered Math Games

Come play and see the great math centers that we have developed for your students to reinforce their math skills. Finally, the answer to what to do with the rest of your students while you are working with your intervention group. All of these center games use the same three manipulatives for easy management.

Science

Deborah Koeck, Yvonne Gomez &
Joyce Kulhanek
CAC 237
(Repeats Session 4)

Grades 3-12

The Periodic Table with ChemAssist

Discover the Periodic Table organization with a hands-on manipulative that promotes inquiry-based chemistry. Explore combining elements and polyatomic ions to form compounds in an engaging way.

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Science
Grades 3-8

Michelle Santisteban
CAC 337
(Repeats Session 5)

The Nature of Learning Program (NOL)

Our Nature of Learning (NOL) program emphasizes science understanding by building student connections with nature. NOL consists of hands-on science activities relating to ecology, earth and life sciences and integrates scientific methods, citizen science, and orienteering. Each NOL program is closely aligned with Texas Essential Knowledge and Skill objectives.

Science & Mathematics
Grades 6-12

Rachel Cywinski
CAC 356
(Repeats Session 3)

Describing Transmission of Sexually-Transmitted Diseases with Math

Participants will engage in an abbreviated session at the “Research Center for Sexually Transmitted Diseases” learning center adaptable for middle or high school students; and then briefly discuss their reactions and share thoughts on adapting for various uses. The goal of this particular learning center for students is linked to their recognition of being able to describe real-life situations with a variety of mathematical tools from simple arithmetic to precalculus. The goal of teacher preparation in this exercise is linked to observation and peer discussion of the roles of inquiry, writing, reading, and integration of science, the use of learning centers, and the use of journaling in mathematics instruction and how or whether this promotes higher order thinking.

Mathematics
Grades 3-5

Carole Rylander
CAC 219
(Repeats Session 3)

Spice Up Your Math Class

This workshop will teach games, games, and more games that cover the TEKS. Help your students to begin to internalize the TEKS by playing a variety of games that cover multiple objectives in mathematics that reinforce skills necessary to be successful in math. Teachers will be active participants in the games and learn how to incorporate them into their lessons. Classroom management will also be discussed.

Mathematics
Grades 9-12

Valerie Vargas & Irene Fuentes
CAC 258
(Repeats Session 4)

The TI-Nspire Handheld

In this presentation, participants will be introduced to the latest technology from TI – the TI-Nspire handheld. We will be looking at various applications that have features relevant to subjects ranging from Algebra I through upper-level courses.

Science
Grades P-6

Myrta Ramirez & Malinda McCormick
CAC 206

PBS Education: Fetch with Ruff Ruffman

Come explore the world of **Fetch with Ruff Ruffman** along with his new sidekick, Princess Pepper doodle von Yum Yum as we take on Season 2 challenges for your science brain! An overview of the PBS program will be followed up by a visit to the Fetch website that is packed full of great activities, lessons plans and printables for teachers, parents and kids alike! Most appropriate for kids ages 8-10.

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Lista Dailey Schwarz
CAC 221

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Science
Grades 5-12

Robyn McGilloway
CAC 355
(Repeats Session 4)

Technology Based Inquiry and Curriculum Alignment (TICA)

San Antonio College (SAC) has partnered with the San Antonio Independent School District (SAISD), in the Technology-based Inquiry & Curriculum Alignment (TICA) Professional Development Project. This project utilizes intensive, hands-on professional development.

Science & Mathematics
Grades 9-12

Dan Dimitriu
CAC 244
(Repeats Session 4)

Teach Math & Science the Engineering Way

The lecture will help high school math and science teachers better plan their lessons, correlate their subjects with real life examples, and find new ideas and adequate resources for their class materials.

Mathematics
Grades 9-12

Tina Vega
CPEC 144
(Repeats Session 4)

Dynamic Discover of Geometry

Come and learn how Geometer's Sketchpad can help your students discover geometric concepts! Explore the software with me and have some fun. In this session we'll learn the basics of using the software with actual lessons that can be used in the classroom.

Seminar Session 3

10:30 am – 11:30 am

Science
Grades 6-8

Angela Thulstrup & Brigitte Deyle
CAC 240

Wordwalls - Building Load-Bearing Vocabulary in Science

Have you been looking for low-prep/no-prep activities that will increase your students' academic vocabulary and achievement? Come join us and learn how to effectively integrate word walls and other activities into your teaching.

Mathematics
Grades P-5

Rachel Morales
CAC 204

Comprehensive TEKS-based Assessment

Have you been looking for comprehensive TEKS-based assessment for students in the early elementary grades? Region 20 will present an overview of E+MAT, the Early Mathematics Assessment Toolkit. Participants will be able to view video clips of the test administration, practice administering the test items, and compare the assessment to others available.

Science

Carmen Fies, Kim Bilica &
Nancy Martin
VATC 120

Grades 9-12

Decoding the TAKS

What do we really learn about our students' science literacy based upon the TAKS test? Join us for an interactive analysis of the 11th grade TAKS test.

Mathematics & Science
Grades P-12

Jennifer Becerra
CAC 258
(Repeats Session 5)

STS-118 Ignite the Flame of Knowledge

As the first Educator Astronaut travels into orbit, NASA's mission for education has been taken to new heights to inspire, engage and educate our nation's future workforce. Join the Exploration of STS 118 with the Engineering Design Challenge and be part of space exploration by growing seeds flown in space!

Science
Grades 6-12

John Hageman & Bob Cherry
CAC 242
(Repeats Session 5)

Radiation and Nuclear Interactions

This presentation covers radiation and nuclear interactions addressed in the textbook Integrated Physics and Chemistry by Tom Hsu. It is designed to introduce the basic concepts associated with ionizing radiation, radioactive material, and nuclear power.

Science

Grades 3-12

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CAC 237
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That's the Way the Ball Bounces

Engage in Physics Phun activities while learning practical application of science process skills. Non-standard units, significant figures and graphing techniques will be explored and modified for grades 3-12.

Mathematics

Grades 9-12

Miguel Barbera
CAC 203
(Repeats Session 5)

Why Do I Need to Learn This?

A hands-on activity on how graphing is used in the real world. (Rubber Band Cannon activity)
Graphing calculators are a must!

Science

Grades 6-8

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CAC 336
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Crazy Traits

This hands-on workshop will help teachers teach genetics and evolution using the new CPO Crazy Traits.

Science & Mathematics

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Science & Mathematics

Grades P-12

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(Repeats Session 5)

Cooperative Learning for Any Classroom

Come see and experience a widely researched and proven effective method of teaching which places strong emphasis on teamwork and changes the role of teacher to "consultant." Participants will leave with "pics."

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CAC 338
(Repeats Session 5)

Manipulate, Manipulate, Manipulate

This workshop will give participants a hands-on opportunity to work with different types of biology/science manipulatives and games. Ideas and handouts will be given to all participants.

Mathematics
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CAC 244
(Repeats Session 5)

"I don't know and I don't care." –

Teaching Middle School Math to the Students Who Need You the Most

A potpourri of everything I know about how to engage these students with a focus on concrete-to-pictorial thinking. Integers/Fractions/Decimals/Percentages/Word Problems/"Big Muscles"/Let's Eat Out! And more. An outline with references is provided.

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Mathematics
Grades 4

Melanie Syma
CAC 205
(Repeats Session 4)

Probability and Statistics

In this activity, students will find all of the possible combinations for making a two-digit number. They will identify which of the following characteristics describe the two-digit number: two-digit number is even, two-digit number is odd, two-digit number has repeated digits, sum of the digits is even, sum of the digits is odd, product of the digits is even, and product of the digits is odd. They will use this information later in the lesson to score points during a game. The student will then record and identify the characteristics that describe the two-digit number and record the points scored by the number.

**Lunch Session I &
Keynote Speaker**

11:45 am – 12:30 pm

**Lunch Session II &
Keynote Speaker**

12:45 pm - 1:30 pm

Please support our conference sponsors by visiting the Exhibits Hall!

Seminar Session 4

1:45 pm – 2:45 pm

Science
Grades 6-8

Joanne Billingsley & Cynthia Gonzalez
CAC 205

Content Trailers

What is a content trailer? A content trailer is a short, 2 to 8 minute media-rich experience that stimulates the viewer both visually and emotionally. Much like a movie trailer, they are designed to invoke the inquiry process in your students. Content Trailers introduce students to new TEKS and leave them wanting to learn more. They are an engaging hook that utilizes technology (PowerPoint & Moviemaker). Images and music can play a powerful role in learning. Content Trailers spark learning at light speed!

Science
Grades K-5

Augustine Frkuska
CAC 243

GLOBE

K-4 students will be introduced to the study of earth science through five modules covering weather, water, seasons, and soils.

Science
Grades 6-12

Roger Kramer
VATC 120

Safety in Secondary Science

Join us to learn and discuss the critical safety requirements for secondary science in the lab and in the field.

Science
Grades 3-12

Deborah Koeck, Yvonne Gomez &
Joyce Kulhanek
CAC 237

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Mathematics
Grades P-8

Myrta Ramirez & Malinda McCormick
CAC 206

PBS Education: Cyberchase

Cyberchase is the Emmy award-winning math mystery cartoon on PBS KIDS GO! That features a team of curious kids—Jackie, Matt, and Inez—who use math and problem solving to outwit and outsmart the dastardly villain Hacker in their adventurous quest to save Cyberchase! Come explore the Cyberchase world with an overview of the program followed by a visit to the website that includes materials for parents, students, and teachers including printables, interactives, challenges, clubs, and e-cards! Cyberchase is most appropriate for kids ages 8-12.

Science
Grades 5-12

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Seminar Session 5

3:00 pm – 4:00 pm

Mathematics & Science

Linda Pruski, Linda Toepperwein,
Deanna Doby & Shaunna Garner
CAC 344

Grades 6-8

Pom-Pom Shooters: Measuring Peak Expiratory Flow

Join us for a fun "shoot out" while exploring the "pom-pom" PEF capacity of your lungs! In this unique activity you will combine math and science skills as physiological data is collected and managed.

Mathematics & Science

Kaz Kuminski
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Grades 3-6

FOSS for 3-6

Experience an afternoon of inquiry based science featuring the FOSS, Full Option Science System. Participants will be actively engaged in a series of hands-on science investigations integrating reading, writing, and math while addressing our state TAKS/TEKS.

Mathematics

Kimberly Moos & Vicki
Spence
CAC 355

Grades 6-8

Do You Want To Take a Chance?

Wanted: Game tester and designer. Do you think what happens to you is chance or luck? Come try our games to see how lucky you are. Win a few, lose a few, maybe we will find out way!

Mathematics

Featured Speaker

Dr. Kathleen Mittag
CAC 336

Grades 6-12

The Amazing Tennis Ball Activity

The objective of this activity is to model a linear and a quadratic equation using a wet tennis ball, easel grid paper, markers, a straight edge and a graphing calculator. Concepts such as determining a linear equation and a quadratic equation both by hand and using a calculator, x- and y- intercepts, vertices, slope of a line, derivative, and integral will be studied.

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