

## **2010 AATM Conference Pre-Conference Guide Saturday, Oct. 2<sup>nd</sup> at ASU Memorial Union**

The following is a detail summary of sessions for the conference.

(There may be some variation of schedules and times.)

Speaker: Kim Hertzog Time: 9:30-10:45  
Room: Apache Audience:  
Title: Navigating - Problem Solving Grade 3  
Summary: The Navigating through Problem Solving and Reasoning books for grades 3-6 present hands-on investigations that nurture reasoning and problem-solving strategies in each of the upper elementary grades. Students apply mathematical ideas from the five main content areas-number, algebra, geometry, measurement, and data analysis. As they work, they infer, generalize, reason by analogy, recognize relationships, and make representations, and they also predict, check, and revise and verify their results.

Speaker: Marcia Corby Time: 9:30-10:45  
Room: Cochise Audience:  
Title: Navigating - Problem Solving Grades 6-8  
Summary: Presents investigations that allow students to reason about factors, area formulas, similar figures, data in a set, and growing patterns. Includes a supplemental CD-ROM that features applets for students' use and resources for teachers' professional development.

Speaker: Amy Rushall Time: 9:30-10:45  
Room: Coconino Audience:  
Title: Navigating - Problem Solving Grades 6-8  
Summary: Presents investigations that allow students to reason about factors, area formulas, similar figures, data in a set, and growing patterns. Includes a supplemental CD-ROM that features applets for students' use and resources for teachers' professional development.

Speaker: Gae Johnson Time: 9:30-10:45  
Room: Gila Audience:  
Title: Navigating - Problem Solving Grades 6-8  
Summary: Presents investigations that allow students to reason about factors, area formulas, similar figures, data in a set, and growing patterns. Includes a supplemental CD-ROM that features applets for students' use and resources for teachers' professional development.

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- Speaker: Shannon Guerrero                      Time: 9:30-10:45  
Room: Gold    Audience:
- Title:                      Navigating - Problem Solving High School
- Summary:                This book's activities highlight the important cycle of exploration, conjecture, and justification in all five mathematical strands. Students recognize patterns and make conjectures, learn the value of a counterexample, explore the strengths and weaknesses of visual proofs, discover the power of algebraic representations, and learn that theoretical approaches can substantiate empirical results. The supplemental CD-ROM features interactive electronic activities, master copies of activity pages for students, and additional readings for teachers.
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- Speaker: Kim Rimbey                      Time: 9:30-10:45  
Room: Graham                      Audience:
- Title:                      Navigating - Problem Solving Grade PreK - 2
- Summary:                The explorations in this book include such tasks as supplying missing numbers in story problems, using clues to identify locations on a map, and placing shapes inside or outside a circle according to a rule. Students apply mathematical ideas from the five main content areas—number, algebra, geometry, measurement, and data analysis. As they work, they infer, generalize, reason by analogy, recognize relationships, and make representations, and they also guess, check, and revise and verify their results. The supplemental CD-ROM features interactive electronic activities, master copies of activity pages for students, and additional readings for teachers.
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- Speaker: Sandee Trevino                      Time: 9:30-10:45  
Room: La Paz East                      Audience: HS
- Title:                      Navigating - Problem Solving High School
- Summary:                This book's activities highlight the important cycle of exploration, conjecture, and justification in all five mathematical strands. Students recognize patterns and make conjectures, learn the value of a counterexample, explore the strengths and weaknesses of visual proofs, discover the power of algebraic representations, and learn that theoretical approaches can substantiate empirical results. The supplemental CD-ROM features interactive electronic activities, master copies of activity pages for students, and additional readings for teachers.
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- Speaker: Deb Schmidt                      Time: 9:30-10:45  
Room: La Paz West                      Audience:
- Title:                      Navigating - Problem Solving High School
- Summary:                This book's activities highlight the important cycle of exploration, conjecture, and justification in all five mathematical strands. Students recognize patterns and make conjectures, learn the value of a counterexample, explore the strengths and weaknesses of visual proofs, discover the power of algebraic representations, and learn that theoretical approaches can substantiate empirical results. The supplemental CD-ROM features interactive electronic activities, master copies of activity pages for students, and additional readings for teachers.

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Speaker: Donna Henry                      Time: 9:30-10:45  
Room: Mohave                      Audience:  
Title: Navigating - Problem Solving Grade 4  
Summary: The Navigating through Problem Solving and Reasoning books for grades 3-6 present hands-on investigations that nurture reasoning and problem-solving strategies in each of the upper elementary grades. Students apply mathematical ideas from the five main content areas-number, algebra, geometry, measurement, and data analysis. As they work, they infer, generalize, reason by analogy, recognize relationships, and make representations, and they also predict, check, and revise and verify their results.

Speaker: Dawn Koberstein                      Time: 9:30-10:45  
Room: Navajo Audience:  
Title: Navigating - Problem Solving Grade 5  
Summary: The Navigating through Problem Solving and Reasoning books for grades 3-6 present hands-on investigations that nurture reasoning and problem-solving strategies in each of the upper elementary grades. Students apply mathematical ideas from the five main content areas-number, algebra, geometry, measurement, and data analysis. As they work, they infer, generalize, reason by analogy, recognize relationships, and make representations, and they also predict, check, and revise and verify their results.

Speaker: Sara Jenkins                      Time: 11:00-11:45  
Room: Apache                      Audience: 6--8  
Title: People Count: Math and Demography in the year of the Census  
Summary: In this year of the census, discover timely and innovative, hands-on activities for drawing connections between math and social studies. Learn about U.S. demographic trends past and present while honing skills in algebra, data analysis, problem solving, and measurement. Activities on CD-ROM!

Speaker: Sherry Markel                      Time: 11:00-11:45  
Room: Cochise                      Audience: 3--5  
Title: Polya's Problem Solving for Your Classroom  
Summary: A hands on workshop illustration George Polya's Problem Solving Model for grade 3-5. Participants will work through activities that provide interactive experience with integrating Polya's model in their own classrooms.

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- Speaker:** Cheryl Johnson                      Time: 11:00-11:45  
**Room:** Coconino                      Audience: HS
- Title:** 2010 Mathematics Standards: Take a Closer Look at High School
- Summary:** During this session participants will explore and examine more closely the 2010 Mathematics Standards in grades 9-12. Key changes and important ideas in these grade levels will be highlighted. This session will be guided by the following questions: What do you notice in exploring each of the conceptual categories and what are the implications for your teaching practice?
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- Speaker:** Bruce MacMillan                      Time: 11:00-11:45  
**Room:** Gila                      Audience: HS
- Title:** Activities and Problems for the Trigonometry Class
- Summary:** Data collection activities and real-world problems will be presented and participants will receive classroom ready materials that can be used in their trigonometry/precalculus classes. Bring your graphing calculator!
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- Speaker:** Shannon Guerrero                      Time: 11:00-11:45  
**Room:** Gold                      Audience: 6-HS
- Title:** Using Web 2.0 Tools to Support Math Instruction
- Summary:** Explore and discuss a variety of ways in which Web 2.0 tools (eg. Wikis, shared documents, online surveys, Twitter, etc.) can be used to promote 21st Century skills in the mathematics classroom. The discussion will focus on current research findings and conceptualizations of Web 2.0, followed by demonstrations and applications of many Web 2.0 tools in mathematics teaching and learning.
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- Speaker:** Kimberly Rimbey                      Time: 11:00-11:45  
**Room:** Graham                      Audience: Pre K-5
- Title:** First Things First! Helping Students Gain a Profound Understanding of Number and Place Value
- Summary:** Meeting the needs of all students is a challenge – especially those needing intervention. This session focuses on the number and place value concepts students need most, with an emphasis on using common tools such as ten-frames and base-ten models and making connections between the structures, relationships, and magnitudes of small numbers(0-10) and large numbers (0-100, 1000, and beyond). Participants will receive handouts with ready-to-use activities. Come ready for fun!
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- Speaker:** Connie Kriel                      Time: 11:00-11:45  
**Room:** La Paz East                      Audience: General
- Title:** Years 1-2-3, Not as Easy as 1-2-3
- Summary:** Presenters will facilitate an interactive group discussion dealing with the first 3 years of teaching. Discussion will include some of the challenges faced by new teachers and sharing of ideas for how to meet those challenges.

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- Speaker:** Nora Ramirez                      Time: 11:00-11:45  
Room: La Paz West    Audience: K-2
- Title:**                      Using Problem Solving Time Wisely
- Summary:**              When students solve problems they learn to conjecture, reason and communicate their thinking. When teachers choose those problems carefully, they can guide students to connect performance objectives within a strand and between strands. Join us in problem solving and take away problems, ideas and questions to help your students make mathematical connections.
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- Speaker:**              Brian Burns                      Time: 11:00-11:45  
Room: Mohave              Audience: General
- Title:**                      Podcasts: Making Mathematics and Technology Accessible
- Summary:**              Students use technology everyday and using Podcasts can plug into this familiar format to introduce mathematical concepts, present problems, or use as a reference. How do you bring this technology to ELL students in a Title I school?
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- Speaker:**              Dr. Mari Westerhausen                      Time: 11:00-11:45  
Room: Navajo Audience: 3--8
- Title:**                      Making Math Matter: Motivating Minds through Modelling (Mini-Me's & Mini-Markets)
- Summary:**              This presentation will explore interdisciplinary ideas inspired by the math practices of the new Common Core Standards for Math. This will address interactive instruction that inspires students' interests and integrates real-life application to problem solving.
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- Speaker:**              Ron Larson                      Time: 11:00-11:45  
Room: Pinal    Audience: 6--8
- Title:**                      Problem Solving using Unit Analysis
- Summary:**              This talk describes a "tried and true" procedure for setting up word problems. Have your students ever started a word problem and said "I don't know where to start?" This procedure turns the problem into something kinetic...and gives them "somewhere to start." In the talk, sample worksheets and an interactive Web site will be distributed. The procedure involves some valuable general rules for unit analysis.
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- Speaker:**              Dr. Lynne Vest                      Time: 11:00-11:45  
Room: Santa Cruz    Audience: HS
- Title:**                      Effectiveness of Mathematics Standards Remediation With Sophomore Secondary School Students
- Summary:**              The purpose of this quasi-experimental, quantitative study was to investigate the significance of the Mathematics Standards Remediation (MSR) program on student performance on the district mathematics criterion-referenced test (CRT). The study determined that student participation in the MSR program positively influenced a higher percentage of students to pass the mathematics CRT. A score of 70 and above is considered passing on the CRT. The independent variable is defined as the sophomore geometry mathematics students who participated in the MSR program. The dependent variable was the percentage of students who passed the district, the mathematics CRT.

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The historical achievement gap between white males versus minority and female students was not substantiated.

Speaker: Sandee Trevino                      Time: 11:00-11:45  
Room: Yavapai                              Audience: HS

Title: American Council's Teacher to Teacher Program

Summary: Teachers who are interested in travelling abroad and visiting teachers, students, and educational institutions are welcome to attend this session. I will share my trip experiences to Kursk, Russia in April 2010.

Speaker: Melissa Hosten                      Time: 11:00-11:45  
Room: Yuma   Audience: 6--8

Title: Brain Torque for Middle School Students

Summary: Have you ever felt that the problems posed in textbooks and other materials just "spin the wheels" in your students' brains? That's brain rpm. Have you ever wanted to find some simple ways that you can apply brain TORQUE to your students' thinking? This workshop will give you some ideas to provide some simple torque to your students' problem solving and some ways to scaffold support for brain torque.

Speaker: Tom Hibbs                      Time: 1:00-1:45  
Room: Apache                              Audience: 6-HS

Title: The Manhattan Project – Multiple Math Lessons in One Problem

Summary: This problem shows the need for pencil and paper in problem solving and yet is impossible without the use of technology as are many real problems today. The problem is multi-disciplinary and can involve geography, history, economics, cultural studies, and math. Tom Hibbs will show how several math technologies have been replaced by the single TI-Nspire suite. Don't show up if you're looking for a problem where kids can give you an answer in 30 minutes. Math topics included are compound interest, series, real rounding, graphing and analyzing growth functions, comparison of methods to meet the needs of the problem, mapping procedures.

Speaker: Christie McDougall                      Time: 1:00-1:45  
Room: Cochise                              Audience: 6--8

Title: 2010 Mathematics Standards: Take a Closer Look at Grades 6-8

Summary: During this session participants will explore and examine more closely the 2010 Mathematics Standards in grades 6-8. Key changes and important ideas in these grade levels will be highlighted. This session will be guided by the following questions: What do you notice in exploring each of the domains? and What are implications for your teaching practice?

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Speaker: Mary Knuck                      Time: 1:00-1:45  
Room: Coconino                      Audience: PreK-2

Title:                      2010 Mathematics Standards: Take a Closer Look at Grades K-2

Summary: During this session participants will explore and examine more closely the 2010 Mathematics Standards in grades K-2. Key changes and important ideas in these grade levels will be highlighted. This session will be guided by the following questions: What do you notice in exploring each of the domains? and What are implications for your teaching practice?

Speaker: Nancy Foote                      Time: 1:00-1:45  
Room: Gila                      Audience: 3-HS

Title:                      Using Podcasts and Teacher Tube to Strengthen Math Skills

Summary: Join me as we listen to, write and record podcasts to help students improve their math fluency. You don't need an iPod to make podcasts. you will be able to return to school on Monday and begin podcasting. You will also learn how to use You Tube to make life easier for you and your students. Have fun and learn a lot!

Speaker: Marcia Corby                      Time: 1:00-1:45  
Room: Gold                      Audience: 6-HS

Title:                      Belates II: A Hands-On Approach to Making Algebra Fun

Summary: 7th-10th grade teachers will experience a variety of new ideas to add to their algebra "tool belt." Topics include graphing linear and quadratic inequalities, slope, the quadratic formula, box-n-whisker plots, and more!

Speaker: Murray H. Siegel                      Time: 1:00-1:45  
Room: Graham                      Audience: HS

Title:                      Real Data Brings Functions to Life

Summary: Using data that are relevant to students allows the importance of algebraic functions (linear, quadratic, cubic, exponential and piece-wise defined) to become apparent. The functions are used as models which can be utilized in problem solving situations. A project can be used to help students master the "family of functions" concept. The graphing calculator is an important tool in this activity.

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- Speaker:** Dr. Amy Gray                      Time: 1:00-1:45  
Room: La Paz East      Audience: 6-HS
- Title:**                      Instructional Strategies for Reaching Hard to Reach Students
- Summary:**      With the world of education consistently adapting to accommodate diverse learners, the general educator is expected more than ever to reach those students with diverse and often lower than typical academic capabilities. This presentation will help equip teachers whose roles are gradually changing from a straight forward, certified math educator to one responsible for meeting the needs of ALL learners while maintaining academic standards. Attention will be paid toward the use of the most essential instructional strategies, classroom and behavioral management tricks, curriculum modifications, and the use of technology. Moreover, student accountability measures in the form of effective communication strategies will be presented. These strategies will empower teachers, regardless of experience or training in special education, to provide effective learning opportunities to ALL students while increasing their self-efficacy in the process.
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- Speaker:**      Dr. Sandra Stone                      Time: 1:00-1:45  
Room: La Paz West      Audience: PreK-2
- Title:**                      Problem Solving through Play
- Summary:**      Participants will learn how to create play environments where real-life problem solving is the center of play experiences in the PreK-2 classroom. Three types of play environments will be modeled: manipulatives, games, play centers, and life skills math problem solving.
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- Speaker:**      Nancy Alcombright                      Time: 1:00-1:45  
Room: Mohave                      Audience: General
- Title:**                      Help! I Have 35 Kids in My Class!
- Summary:**      With today's budget realities, class sizes are rising. Effective classroom management is essential for learning to take place. Time lost in addressing low level behavior issues can be immense, but no addressing them leads to major disruptions! Learn about effective strategies to manage a large classroom in a simple fair, and mutually respectful way.
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- Speaker:**      Courtney Koestler                      Time: 1:00-1:45  
Room: Navajo Audience: Pre-5
- Title:**                      Children's Number Sense and Computation: Alternative Algorithms
- Summary:**      This session will focus on multiple strategies for multi-digit addition and subtraction (multiplication and division if time allows) that build on and support children's understandings of number sense and place value. Teaching strategies of how to support these algorithms in the classroom (and at home) will also be discussed.
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- Speaker:**      Matthias Kawski                      Time: 1:00-1:45  
Room: Pinal      Audience: HS-Gen
- Title:**                      The role of problem solving and discovery in the undergraduate curriculum
- Summary:**      In 1983 Schoenfeld wrote: "A problem is only a problem (as mathematicians use the word) if you don't know how to go about solving it. A problem that has no 'surprises' in

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store, and can be solved comfortably by routine or familiar procedures (no matter how difficult!) is an exercise."

Speaker: Stan Bristol                      Time: 1:00-1:45  
Room: Santa Cruz      Audience: HS

Title:                      Problem Solving with Recursion

Summary: The concepts of iteration, recursion, and difference equations will be employed to solve a variety of problems. Graphing calculators will be used to show how to use recursion.

Speaker: Kimberley Thomas                      Time: 1:00-1:45  
Room: Yavapai              Audience: HS

Title:                      Problem Solve to Classify Quadrilaterals in Geometry

Summary: This class project requires students to verify characteristics of a given geometric figure using coordinate formulas for distance, midpoint, and slope to confirm parallelism, perpendicularity, and congruency. Participants will compare and contrast activity styles- old school paper and pencil to using the TI-Nspire. Participants will receive hard copy and have access to all electronic documents.

Speaker: Melissa Hosten                      Time: 1:00-1:45  
Room: Yuma      Audience: HS

Title:                      Supporting Proof for Struggling Learners, ELLs, and Others

Summary: Have you wanted to support students ability to write proofs from both ends to the middle, from the middle out, frontward, and backward? Have your visual and kinesthetic students ever struggled with proof? This workshop will provide a hands-on approach to writing proofs that engages visual & kinesthetic learners. The workshop will help you provide support for learners with disabilities, struggling learners, and English Language Learners in writing and understanding proofs.

Speaker: Jeffrey Hildebrandt                      Time: 2:00-2:45  
Room: Apache              Audience: 6--12, Supervisor

Title:                      Closing the Achievement Gap with Technology and Data-Driven Education

Summary: In order to get AZ students through the "Algebra Gateway" and move them on to higher level mathematics, there is a need for an instructional improvement system that differentiates instruction to respond to intervention and boost achievement. I Can Learn (r) is a proven program recognized by the US Dept. of Education What Works Clearinghouse for its positive effects with struggling math learners. We will explore the use of a computer based math curriculum with data drive instruction.

Speaker: Brian Stone                      Time: 2:00-2:45  
Room: Cochise              Audience: 3--8

Title:                      Problem Solving Economics

Summary: This presentation covers the facets of a realistic classroom economy simulation intended for intermediate and middle school students. This classroom activity is a recurring exploration of economics concepts, which requires students to use logic, reasoning, and a

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variety of problem solving strategies. Participants will learn how to set up, run, and assess such a system while engaging in a sample classroom economy scenario.

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Speaker: Mary Knuck                      Time: 2:00-2:45  
Room: Coconino                      Audience: 3--5

Title:                      2010 Mathematics Standards: Take a Closer Look at Grades 3-5

Summary: During this session participants will explore and examine more closely the 2010 Mathematics Standards in grades 3-5. Key changes and important ideas in these grade levels will be highlighted. This session will be guided by the following questions: What do you notice in exploring each of the domains? and What are implications for your teaching practice?

Speaker: John Jensen                      Time: 2:00-2:45  
Room: Gila                      Audience: HS

Title:                      Sand, Snow, Tanks and Traffic: Problem Solving on the AP Calculus Examination

Summary: An exploration of recent trends toward problem solving on the AP Calculus Exam with examples from recent AP Free Response Examinations. Also, a closer look at the dangers of constructing applied problems.

Speaker: Sue Norton-Scott                      Time: 2:00-2:45  
Room: Gold                      Audience: 6--8

Title:                      Math Olympiad: How Many Ways Can This Problem Be Solved?

Summary: Celebrating its 31st year, the Math Olympiad international competition continues to challenge the problem solving abilities of students in grades 4-8. This session is designed for teachers who are new to the program as well as veterans wanting creative coaching tips that motivate students to find numerous ways to solve problems. Whether or not you coach a team this year, you will be able to apply these winning strategies in your classroom next week. The imaginative student-produced video about solving math problems is guaranteed to have you thinking in a different way!

Speaker: Gina Warren                      Time: 2:00-2:45  
Room: Graham                      Audience: 3--8

Title:                      Multiplying & Dividing Fractions: A student centered approach

Summary: The purpose of this session is to have participants engage in interactive problem-solving experiences to solve fraction multiplication & division problems. The workshop facilitator will model the use of student-centered practices for teaching math concepts through the use of manipulatives, interactive virtual experiences, representations, and dialogue and communication.

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- Speaker: Erik M. Francis, M. Time: 2:00-2:45  
Room: La Paz East Audience: 6-HS, Sup
- Title: CalculatingThrough Compostion: Using Writing in Mathematics to Assees  
Student Comprehension and Foster Higher Order Thinking
- Summary: Participants will learn how to assess and evaluate written communication to determine whether students fully comprehend key math concepts while also improving a student's ability to document and explain how they apply key concepts to solve mathematical problems and equations. Participants will learn how to use the 6+1 Traits Writing criteria of ideas, organization, word choice, and sentence fluency as a scoring guide to determine student comprehension as well as application, analysis, and evaluation of key math concepts and equations. Participants will learn how to use techincal writing, descriptive writing, persuasive writing, and creative writing to not only improve student achievement but also foster student engagement.
- Speaker: Veronica Carlson Time: 2:00-2:45  
Room: La Paz West Audience: HS
- Title: Nspiring the Algebra 1 Classroom
- Summary: Participants will learn how to use the TI-Nspire learning handheld and Math Nspired lessons to improve the understanding of algebra concepts in an Algebra 1 classroom. The technology being used will be the TI-Nspire Navigator, TI Nspire learning handheld and/or TI-Nspire Computer Software. Participants will leave with ready-to-use lessons to incorporate into their Algebra 1 classroom.
- Speaker: Kimberly Perkins Time: 2:00-2:45  
Room: Mohave Audience: Gen, Sup
- Title: What math teachers need more of... "Time to Teach!"
- Summary: Time, it has been said, is the coin of learning. Yet every math teacher has known the frustration of losing valuable instruction time to matters of discipline. The amount of time lost is enormous! The most unchallenged assumption in American schools is that most children are arriving to school knowing how to behave. They don't! Learn techniques and strategies to reduce the discipline issues in your class by 80%! Teach your students the skills they need to be successful learners...BEFORE MATH INSTRUCTION STARTS.... THEN let the PROBLEM SOLVING BEGIN!
- Speaker: Courtney Koestler Time: 2:00-2:45  
Room: Navajo Audience: Pre-5, Supervisor
- Title: An Introduction to Cognitively Guided Instruction: A Problem Solving Approach to Teaching Elementary Mathematics
- Summary: This session will introduce Cognitively Guided Instruction (CGI), a research-based professional development program that focuses on using student thinking to guide instruction. This approach shows that very young children can solve various kinds of problems and supports their understanding of addition, subtraction, multiplication, division, base-ten concepts, and multi-digit operations. Participants will walk away with ideas to try and resources to support them.

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- Speaker: John Willy                      Time: 2:00-2:45  
Room: Pinal    Audience: 6--12
- Title:                      POW! Problem Solving and Writing a Powerful Combination
- Summary:                Using Problems of the Week, students are asked to not only solve non-routine problems, but to also write and explain their thinking. Participants will have an opportunity to try some of these problems and learn how they can be used in their classes.
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- Speaker: Snehal Patel                      Time: 2:00-2:45  
Room: Santa Cruz    Audience: 2--5
- Title:                      Classroom studies on the effectiveness of a math learning game for elementary students
- Summary:                Several classrooms from two elementary schools participated in this quantitative study funded by the U.S. Department of Education, to develop and study the effects of a collaborative online fraction learning game. This games are developed using the guiding principles behind guided-discovery-based-learning and situated learning. Audience will see research results, learn how to play the game/use it in the classroom, group competition, and best practices.
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- Speaker: Dr. Sharon Whitehead                      Time: 2:00-2:45  
Room: Yavapai                      Audience: HS, Gen, Sup
- Title:                      Math-In-CTE: Problem Solving for the 21st Century
- Summary:                Interested in \$53 per hour graduate credit from Colorado State University? In practice applications of 2008 Math standards? In helping improve students math comprehension and AIMS scores in collaboration with other faculty? Come learn about Math-in-CTE: Problem solving through everyday applications. Professional development model proven by years of research.
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- Speaker: Katherine Jillette                      Time: 2:00-2:45  
Room: Yuma    Audience: 3--8
- Title:                      Deliver Word Problems to Your Struggling Math Students with UPS!
- Summary:                UPS is shorthand for Understand, Plan, Solve. It is a 3 step process for solving word problems that isolates the important vocabulary and key words in the first step, choose the correct operation needed to solve the problem in the second step, and solve the problem in the third step. There is a final optional step in which you check the work and justify your answer. I will provide a template that I use in my class when teaching UPS. This strategy is especially helpful when instructing English Language Learners and students in Special Education, and I can show at least two different appropriate modifications to use when working with these students.