

CAMT 2018 Sessions (Grades 6-8)

Opening Sessions, Monday 8:00 AM-9:30 AM

Teaching Beyond the Task	As more teachers look to add high-yield tasks to their repertoire, the struggle to make it all work becomes real. Let's examine how problem-based lessons can be used throughout the scope of a unit and how we can harness their power to move student thinking forward. We'll identify strategies and explore some tasks that help us find a healthy balance between application, conceptual understanding, and procedural fluency.
Heartprint: Living a Fully Engaged, High Energy and Well-Balanced Professional Life!	In this inspirational address, Dr. Timothy Kanold draws from his new book HEART! Fully Forming Your Professional Life as a Teacher and Leader, to provide research, insights, and tools from thought leaders inside and outside our education profession. He examines ways for mathematics educators to lead an energetic, happy, and well-balanced professional life. The relational expectations, give and take, and daily chaos of our school life and culture can sometimes be overwhelming. By understanding the impact of their effect on others, participants can become more inspiring, more fully engaged in their work, and have a magnified impact on students and colleagues—season after season.

Extended Sessions, Monday 10:00 AM - 12:00 PM

So, Is Failure Really an Option?]Wanting to help your students succeed with failure? What does that mean for how we approach teaching and learning mathematics? What connections are there among equity, grit, resilience, a growth mindset, and failure that can help you help your students? Explore activities, participate in conversations, and leave with tools.
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Monday, 10:00 AM-11:00 AM

Activities to Introduce Slope and Rate of Change with the CBR Motion Detector (TI)	"Dust off your CBR motion detectors and start using them again. This hands-on session will feature activities for introducing slope and rate of change at both the middle school or Algebra I level. Whether you are a new user or experienced, this session will polish your skills with using the TI-84 Plus or the TI-Nspire technology and a CBR motion detector. Let's have some fun!!!"
Interactive Math Journals: A Math Wikipedia	"Discover how to create journals with your students that are a useable reference throughout the year. Participants will learn how to set up and organize journals, as well as see and make samples from most of the math strands. Foldables and suggestions for preferred materials will also be included. This is a hands-on session. Be ready to cut, fold, and glue! A spiral theme book can be useful."
Making Small-Group Instruction Work	"How do you make small-group instruction work without additional planning time? With this interactive session, you will experience what the students in your classroom will go through. You will work with your colleagues to investigate the flexibility of the guided small group process, learn how to manage your classroom to ensure all students are engaged in meaningful learning, and learn a variety of ways to present information that has traditionally been taught during a direct-teach lesson. You will walk out with a list of techniques to begin using small-group instruction teaching strategies."
My Favorite Contest Problems Are for All Students	Problem solving is central at all levels of math. Carefully choosing the setting and content can make math fun and exciting too. Challenge your students with these 20 classic contest problems and they will discover multiple solutions that enrich understanding. Teaching problem solving will be modeled as you contribute solutions. Leave with these and 50 additional problems.
Using a Graphing Calculator for Success on the STAAR Math Grade 8 Exam (TI)	Join us for a great session on how the appropriate use of graphing technology can impact test scores. Learn several calculator strategies on how to assist students as they problem solve their way thru some of the more commonly missed Release Test items.

Building Concepts in Middle Grades for Statistics and Probability (TI)	This hands-on session will feature TI's new Building Concepts in Mathematics resources and the TI-Nspire CX Technology. Building Concepts in Mathematics is a series of lessons that covers essential, foundational mathematics concepts—like statistics and probability. Activities will focus on TEKS for Grades 5 thru 8. Attendees will receive samples of lessons and activities that can be used with the TI-Nspire technology.
Building Vocabulary in the Mathematics Classroom with a Focus on English Language Learners	"Has building academic vocabulary been a struggle for your students? Acquire instructional strategies that support the learning of mathematics while helping with language acquisition. Engage in mathematics activities that address language proficiency levels in the four domains (listening, speaking, reading, and writing) while developing background knowledge and building vocabulary."
Fast Facts and Fractions	Four out of three students struggle with fractions! And the other 50% struggle with their times tables. Overcoming these two hurdles is essential to success in middle and high school algebra. See how I helped my intervention students master all fraction operations and learn their multiplication facts. Complete and comprehensive handout included.
Effectively Using an Interactive Subject Notebook—Make and Take	"In this session, you will learn how to effectively manage the use of the Interactive Subject Notebook (ISN) in a middle-school classroom. Participants will practice creating an ISN during this session. All participants will receive access to the presentation file as well as digit copies of ISN components."
It's All About the Relationship—Ratios and Proportions	"When students use manipulatives, it isn't just for surface learning, they are making connections and drawing their own conclusions. That leads to deep learning. Participants will move through the instructional sequence of proportional relationships using manipulatives, visuals, and symbolic representations."
TEA Update for Middle School Mathematics	This session will present the most current information regarding grades 6–8 mathematics education. Critical issues such as instructional resources, MSTAR initiative, Texas Gateway, state and federal requirements, PAEMST, and STAAR will be discussed. Attendees will be given the opportunity to ask questions.
Fold with Focus: First Steps and Decisions with Foldables®	"Do you wonder where to begin implementing Dinah Zike's Foldables® in your classroom? Do you leave a Foldable session motivated and inspired, then find yourself overwhelmed at the prospect of using this highly-effective strategy with students? This session is for you! Clear hurdles to implementation in this highly engaging and interactive presentation. Leave ready to address TEKS standards, vocabulary, and more—find your focus with Foldables®!"
High-Quality Mathematics Teacher Professional Development	"NCTM (2014) calls for mathematics teachers to ensure success for all students. As facilitators of mathematics professional development, we are challenged with supporting teachers making the transition toward enacting the guiding principles and practices. This session discusses components and research to determine how high quality MPD meets the needs of mathematics teachers as well as impact student achievement."
Kids are Fearless: Let Primary School Students Use Child-Friendly Apps to Build Digital Portfolios	"Secondary students are required to understand and use technology in this day and age. Why do we expect secondary students to understand technology if they have no chance to use it in the primary ages? Most apps providing digital portfolios are for older students, and it is easy to see why. Older students are very creative, and often know how to express their own thoughts on and off of paper. However, we should also be looking to younger students to build their portfolios at as young an age as six. There are child-friendly apps for use that can do just this. This session will cover growth tracking, accommodation, and documentation. Although this session focuses on one digital portfolio app, this is just scratching the surface of resources at our students' fingertips!"

Math Learning Disabilities, Dyslexia and ADHD: Remediating Effectively	"When we hear dyslexia, we think reading and writing, but 80% of people with Specific Language Impairments and 31% of people with ADHD struggle with math. Yet, many students miss out on high-quality mathematics remediation because schools and parents so frequently focus on literacy. Through lecture supported by powerpoint, discussion, and hands-on activities, Diana Kennedy will explore explicit teaching, concept/procedure integration, incrementation, error analysis, and accommodations for teaching students with MLD. Participants will leave with games, lessons, and approaches to help all math students excel."
Problem Strings: A Powerful Instructional Routine	"A Problem String is a powerful lesson format where all students learn, have access to the problems, and are challenged. The success hinges on the teacher's purposeful question order, class discussion, and modeling student strategies to build connections. In this extended session, you will experience a variety of problem strings across the grade levels. We will also unpack the elements of the routine—how they work together to increase access for all students to sophisticated mathematics. Want to get your students really thinking and mathematizing? Come join us!"
Tech Tools Perfect for Teaching Math TEKS	"The Standards for math stress real-world relevance, creative problem solving, collaboration, and communication. In this session, we will provide teachers and students with mathematics relevant to our world today and easily search a collection of real-world scenarios by category or math level. These real-world questions combine media with interesting challenges involving math. We will explore Math Map challenges using google maps and Google documents for collaboration in the classroom. Tackling real-world problems can be daunting for students who may be use to completing practice problems out of a book. Encouraging students to work together to identify what they know and need to know creates a support system. Asking students what they have learned and how they can apply what they have learned allows them to reflect as a group and collaborate to extend their understanding of a mathematical concept. Come learn how to creatively teach using technology!"

Monday, 11:30 AM - 12:30 PM

Blended Possibilities	"Even though many of us don't have technology-rich classrooms, the rapidly evolving education landscape increasingly requires us to incorporate technology to customize student learning. Blended learning, with its mix of technology and traditional face-to-face instruction, is a powerful student-centered approach to provide customized education for all students. In this informative session, strategies will be shared with teachers and instructional leaders on how to effectively implement blended-learning into their instruction."
Counters, Number Line and Integers... Oh My!	"In order to reinforce the state standards regarding integer operations, this session will demonstrate how the use of counters and number lines can deepen student comprehension. The goal of the presentation is to provide audience members with a teaching tool that will enable educators to meet the needs of all learners, and in turn, increase student achievement with integer operations."
Engaging in Financial Thinking	Does the financial literacy strand of the TEKS leave you feeling stressed? Not sure what to use or how to help students understand financial matters? Are you feeling stumped on what the TEKS mean and how to translate them into activities? This session will feature new Math Cut Ups activities and other tasks that help middle school teachers promote financial literacy in the classroom and help teachers better define the skills embedded within the TEKS.
Graphs in Real Time—RUSMP	Participants will be given the opportunity to explore the use of the CBR with the graphing calculator to produce real-time graphs. Participants will match graphs using the CBR and create graphs from descriptions. The activities will also allow participants to experience the meaning of slopes and y-intercepts.

The Gift That Keeps on Giving	"Teachers will explore the use of open-ended performance tasks to deepen student understanding of mathematical concepts. We will look at a variety of open-ended performance tasks, along with student-friendly rubrics and student examples. We will explore how these are used in the classroom to encourage students to defend their solutions. Using open-ended problems in the math classroom will give you a view into your students' thinking and allow you to adapt instruction. This is the gift that keeps on giving. You will leave with a already student-tested rubric and ready-to-use performance tasks."
OMG! Middle School Math!	"Come see how graphic organizers can transform your class! Make an Outstanding Math Guide (OMG) containing graphic organizers with steps, examples, and vocabulary for every key concept taught throughout the year. This creative guide offers students a quick reference that will put the year's curriculum at their fingertips! The OMG will transform your classroom and help you introduce or review material in a way that is fun and exciting for students! Our session will explain how we transformed our school from moderately-passing performance on math standardized tests to an exemplary performance while maintaining a stable student population and the same teaching staff. We will model making the organizer and three of the graphic organizers in a make-and-take session for you to replicate our success in your school!"
Word Problems Don't Have to Be a Problem!	"Together, Mike and Don have \$28. If Mike has \$2 more than Don, how much money does each boy have? Sophia had three times as many marbles as Anna. If Anna has 48 marbles, how many marbles do they have in all? Huey has some money. Luey has \$2 more than Huey, and Duey has \$2 more than Luey. If they have a total of \$60, how much money does each boy have? Do your students struggle with questions like these? If so, this session is for you! Come and see how to draw a simple bar model to make sense of real-world situations."
Developing Area Formulas—A Deconstructive Good Time!	"In this session, participants will engage in hands-on activities deconstructing geometric figures and deriving area formulas."
A Framework for Supporting All Students: Area of Composite Figures, Grade 7	Experience classroom-ready activities that integrate research-based instructional strategies designed to narrow academic gaps related to the area of composite figures. Purposeful small-group intervention suggestions are incorporated to facilitate learning for a broad range of students including English Language Learners and struggling students.
A Conceptual Approach to Proportional Reasoning	Proportional reasoning is an essential topic in middle-grades mathematics. We will discuss a conceptual approach to teaching proportional reasoning that focuses on graphical representations to enhance understanding.
#CloneMe!	"Have you ever stressed wondering if the material you left for the sub is being taught correctly? Come see multiple ways to implement videos into your instruction. Be sure to bring your Apple/Android tablet for some collaborative brainstorming and the creation of sample videos. The ShowMe App is an innovative app that can be used for a plethora of activity types within your classroom (i.e. flipped classrooms, intervention, substitute days, and centers/stations)."
Data-Driven Math Instruction	"Apply the best practices of a former NASA system engineer to the design of effective and research-based learning experiences for students. Encounter a systematic approach to incorporating vertical alignment, establishing teacher and student clarity, analyzing student work, and integrating high-yield instructional strategies into every unit of study. Participants will learn the four critical components of an effective data driven instructional system, engage in sample activities that demonstrate the connections between systematic instructional planning and lesson delivery, hear testimonials about improved job satisfaction and teacher morale as a result of systematic instructional leadership, and leave with practical next steps that can be immediately applied to their unique educational environment."
Modeling and Solving Equations—Vertical Alignment	Come find out how math in the elementary years sets the foundation for modeling and solving equations in the middle and high school grades. Leave with resources and many ideas for engaging lessons and activities!

Pedagogy and Paper Folding	Origami is the art of paper folding to construct a sculpture from a square. This art usually results in the paper having many shapes and patterns which we intend to use to explain mathematical concepts. We will go over TEKS from the primary level and use origami as a manipulative to teach them.
Teaching Middle and High School Students to Speak the Language of Math (Part One)	Back by popular demand! After the overwhelming participation at CAMT 2017, come join part one of this two-part series about teaching kids to speak the language of math! Although it can seem daunting, both middle and high school students can learn to participate in meaningful discussion when they have the instructional support they need. In this session, come see "math talk" in real classrooms and explore a set of principles that provide support for young mathematicians as they learn to articulate their own ideas, consider the perspectives of peers, and construct mathematical understandings.
Online Resources that Promote Higher-Level Thinking	"There are many online resources available to us as educators. Due to the vast number of these, it can be overwhelming to know where to start and which resources are best for you in your classroom. Through time and reflection, we have curated many resources that promote what we believe is the most essential component in a classroom—students engaged in higher-level thinking. In this session, participants will rotate through stations that model these teaching strategies and activities from our curated list. Participants will leave with our list and descriptions, as well as having experienced a number of the resources themselves."

Extended Sessions, Monday 12:30 PM - 2:30 PM

Feedback That Feeds Forward	Feedback is only effective if it is a catalyst for change in student learning. Effective feedback is timely, descriptive, and specific to both the work and the student's needs. In effective feedback episodes, both the teacher and student learn something. Effective feedback is coupled with immediate opportunities for students to use it. Participants in this session will analyze examples of feedback and learn feedback strategies that help students answer the question, "Where am I now, and what do I do next?" Participants in this session will: -- Look at feedback through three lenses -- Learn to provide effective feedback messages to students -- Learn to create opportunities for students to use feedback and improve.
In-RIGOR-ating Math Notebooks through Differentiation	Different strategies can be used to teach content and some of these same strategies can be changed and used by students as products to show their mastery of content. In math, products include writing a testable question or solving a real-world problem; however, there are other quick project formats that can be used to strengthen and/or assess content knowledge while communicating crosscutting concepts. Some of these quick project formats include: • Plan and conduct a survey. Analyze and communicate data collected. • Make a model and use it to present a short lesson with a clear purpose. • Outline the pros and cons of a local, national, or world math event or legislative action, e.g., Daylight Savings Time. In this new session, Dinah will share her thinking and strategies about generating rigor in interactive student notebooks, with a focus on differentiation. You'll see and hear ways to differentiate math content while creating samples to take away with you and adapt. All materials provided

Monday, 1:00 PM - 2:00 PM

Algebra Gone Viral: Social Media Math 2.0	Social media is an ever-changing part of our lives and creates unique opportunities for educators to provide relevant and captivating content for students. Use Instagram, Twitter, FaceBook, etc. to grab your students' attention in the mathematics classroom! Imagine algebra trending in your classroom! Social networks take up a large part of students' time, but we can channel that interest to explore algebra using social networking. Investigate how you can engage students and build a framework of conceptual understanding with inquiry-based learning and real-life connections.
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Geometric Vertical Alignment within the TEKS	"Experience TI-Nspire activities that start at the middle grade level and can be increased in mathematical intensity each year through all of high school. Vertical alignment across grade levels, who knew? You will walk away with several TI-Nspire activities that can be used in your classroom ranging from pre-algebra through Algebra 2."
Middle School TEKS Activities with the TI-Nspire CX™ Handheld	This hands-on session will feature a variety of middle grades activities using the TI-Nspire CX™ handheld. Activities will focus on the Grade 6-8 TEKS. The TI-Nspire CX™ is capable of computations with fractions and has a wide array of available representations including circle graphs, bar graphs, dot plots, histograms, and box and whisker plots.
Teaching Mathematics with the End in Mind	"How do you like teaching mathematics with the focus on advancing students to the master level? This session will introduce you to mathematical discourse, thinking, and problem solving that will scaffold students to perform at the highest level. This will also include Jan Van de Walle's student-centered strategies and quality of work criteria. Mathematical process standards and misconceptions on major key concepts in middle-school math and Algebra 1 will be targeted."
Where's the 'On' Button—Graphing Calculators for Absolute Beginners	This hands-on session will explore basic features of the TI-84 Plus family of graphing calculators to support classroom instruction of the TEKS. Topics will include mode settings, entering data into lists, setting windows, constructing statistical plots, exploring data tables, and using split screens. If you use the TI-84 Plus, TI-84 Plus C SE, or TI-84 Plus CE this session is for you. Truly for beginners. Calculators will be provided, but feel free to bring your own
Tired of Playing "Whack-A-Mole" With Your Students?	"If you're tired, imagine how exhausted your students are! As soon as educators feel like they have solved one mastery issue another pops right up. Using intentional pre-assessments can end that game for good. In this collaborative session, we will demonstrate the use of intentional pre-assessments to guide differentiated instruction to boost student confidence with engaging, relevant, and rigorous activities."
Helping ELLs with Word Problems in Secondary Math	"When solving word problems, working memory must use more resources to process language, leaving fewer resources for mathematical processing. In this session, we will explore suggestions from David A. Sosa's book, "How The ELL Brain Learns," and practice rewriting word problems to provide accessibility and scaffolds for ELLs."
Everyone Likes Parfait!—Building Depth and Direction with Layers	"Do you wish your students were more self-directed? How can you incorporate more depth? In this session, you will learn about ways to rethink your instruction through layers. Students move through layers at their own pace, beginning with required skills and moving towards critical thinking applications. In this personalized setting, students have choice, but also the accountability for mastering their learning goals. Advanced layers allow for differentiation and depth through research and application of concepts. Come see how you can build self-directed learners and connect mathematical thinking to authentic experiences."
Nearpod and Sub Plans	Do you hate writing sub plans? Do you feel like when you're gone, it is a wasted instructional day? Come learn how to use Nearpod to make sure that your students are still learning from you on days you are out. Nearpod allows your students to watch videos (of you teaching!), submit work, take mini-quizzes, and more, while you are gone!
Got Algebraic Reasoning (Non-Manipulative)	"This session will demonstrate several non-manipulative techniques that can be used to help students with algebraic reasoning. Techniques such as problem passing, flow charting, and sequencing will be demonstrated. Electronic versions of activities will be made available to all participants."
Shaping the World #WorldShapers	"Come and learn how "shaping" the minds of our students also shapes the world! This all-encompassing session will provide you lessons, ideas, activities, and resources for implementing a unit on determining the area of composite figures. The culminating project will help students make connections and apply learned skills. Your students will start looking at the world from a whole new perspective!"

Convergence: How a Collaborative, Inquiry-Based Classroom Earns Top Marks on Any Rubric	"The number of research-based best-practices rubrics (including T-TESS) can make your head spin. Living up to all of those expectations isn't as difficult as it seems. As a mathematics educator, I will provide some clarity by ""working a simpler problem."" By tapping into students' natural inclination for collaboration and curiosity, teachers can transform classrooms into highly engaging work spaces. In this session, I will explain how all the research lines up and give practical steps to get you started. Bring an existing lesson plan to transform. Ideal for beginning (or just frustrated) teachers!"
Grit in Mathematics: Designing Lessons to Cultivate Passion and Perseverance	"Grit is the combination of passion and perseverance. Passion builds from interest and curiosity, which should be at the heart of our curriculum. Perseverance, the ability to face and overcome challenges, has to be cultivated through purposeful practice. Participants will learn practical ways to infuse their mathematics courses with passion and perseverance in an effort to generate a culture of gritty and inspired students."
Strategy-Based Instruction for Addition and Subtraction Facts	"Educators will learn effective and efficient strategies to help students achieve mastery of the basic addition and subtraction facts. The Texas Essential Knowledge and Skills (TEKS) require students to use strategies when solving problems, including when learning the basic math facts. The National Council of Teachers of Mathematics (NCTM) considers fluency with numbers and operations an essential skill for algebra readiness. Furthermore, strategy-based instruction for basic math facts builds flexible thinking and mathematical reasoning in all of our students, which in turn, increases students' procedural fluency."
Number Line: Math Teacher's Swiss Army Knife	"The Number Line is the only tool mentioned in every grade of the TEKS (1-8). See why it is so important, and how it bridges concepts across grades. Learn to use the number line to teach whole numbers, fractions, addition, subtraction, multiplication, division, decimals, integers, and so much more."

Monday, 2:30 PM - 3:30 PM

Construct a Box—Uncover and Discover Geometry	"Transform greeting cards into boxes to discover and refine geometry concepts and definitions, make conjectures, and answer probing questions about parallelograms, rectangles, squares, and quadrilaterals. Utilize ratio, proportion, area, and volume to focus on the relationships among those concepts while participating in this highly interactive hands-on activity to bring back to your classroom. We will actually construct the box and participants will leave with the boxes they created, a lesson plan for use as a multi-day activity, and a set of non-routine problems related to boxes. This activity transfers well for use in events outside of the regular classroom, with parents alongside students."
Four Essential Elements of RTI for Algebra TEKS	"Emphasizing Pre-Algebra to Algebra I concepts, participants will walk through implementation of the 4 Essential Elements of successful RTI programs: screening, making decisions, engaging in explicit instruction using manipulatives within the Concrete-Abstract-Representational process, and integrating progress monitoring. You will learn how to incorporate language development, EL strategies, and problem solving. All activities and test questions are connected to TEKS Algebra standards."
Function Fun for Everyone	"Two great hands-on activities will engage your students in the world of functions. Great for STEM and science integration. Even younger or struggling students will actually see how slope and y-intercept work, as well as understand the slope-intercept form, rise/run, independent and dependent variables, and line of best fit. Tension forces in physics will also be integrated. Complete handouts are ready to be downloaded."
Perfectly Portioned Percents—Constructing Meaning from the Parts and the Whole	During this interactive, modeled lesson, participants will explore the construction and deconstruction of images and numbers to develop the concept of 100%, then transition into the use of the percent bar model and the connection to the proportional representation. (Readiness standards 6.5B and 7.4D)

Representing Proportions	"Participants will use multiple representations to model proportional thinking, such as strip diagrams, double number lines, manipulatives, and graphic organizers. Providing various entry points to proportional problems leads to mastery by students of all abilities. This session focuses on the "Why?" in addition to the "How?" Join us and leave with classroom-ready activities and ideas to implement in your new school year!"
Integrating Technology into the Classroom	"In this session, I will go over the basics of how to set up and implement Google classroom into your classroom. I will also demonstrate some other websites that link with Google classroom including GoFormative, BrainPop, and thatquiz that help with formative assessment and practice. These websites can help with classroom differentiation and can be quickly and easily navigated. If possible, bring your own device to create as we go!"
#Canyoufunction	Are you looking for fun activities for teaching functions? Need more ideas for interactive journals? This is the place for you! Ideas for journal notes about functions and activities for teaching functions will be shared. Examples for 8th grade math and Algebra 1 will be available. Participants will leave with classroom-ready materials. Come join the fun!!
Getting Them to Want to Be There—Universal Games for the Middle School Classroom	"Participants will explore how easy it can be to take existing curriculum and make it into an exciting game so that kids will love coming to class. All attendees will receive access to the presentation, as well as the electronic files of the games presented."
Five Ways to Enrich Multiple-Choice Questions in Mathematics	"Surprisingly, research finds multiple-choice questions can be a valuable learning experience! But can instruction with STAAR multiple-choice questions also be a rich learning experience? Learn five strategies to differentiate instruction with multiple-choice questions. Each strategy is illustrated using released STAAR test items, because students benefit from instruction and practice in the format of the STAAR test."
Growth Mindset Meetup	Network and learn with educators who are interested in, or excited about, applying growth-mindset strategies in education. This highly interactive gathering will start with a basic discussion of emerging trends in the field, and then focus on practical application of growth-mindset strategies in classrooms, faculty teams, and more. Bring your ideas and questions! We provide a structure for participation and conversation. Participants will be encouraged to add their own stories and wonderings to the discussion. Leave with inspiration, fresh ideas and new collaborators. Optional: bring contact information or business cards to share.
NCSM—Math Leadership Resources	"NCSM is a national organization supporting math education leaders at the campus, district, regional, and university levels. Come find out more about NCSM resources that you can use as you support math teachers in your work. Resources include three-act tasks, coaching strategies, and formative assessment techniques."
Simple Centers, Seriously?	"Preparation, classroom management, differentiation can all make using centers a challenge. Come learn new strategies and share ideas to make center learning meaningful for students and realistic for the teacher. See new tools from ETAhand2mind to engage your students. Get free manipulatives that you can start using in class right away."
TEA Update for Elementary Mathematics	This session will present the most current information regarding kindergarten – grade 5 mathematics education. Critical issues such as instructional resources, ESTAR/MSTAR initiatives, Texas Gateway, state and federal requirements, PAEMST, and STAAR will be discussed. Attendees will be given the opportunity to ask questions.
Supporting the Newcomer in the Mathematics Classroom	Do you have students who are new to the United States? Join us as we discuss ways to create a safe and successful learning environment for students who are learning English. Explore ways to incorporate research-based strategies that help students acquire language and make math more accessible.

Ed Camp for Math Instructional Coaches	"Ed camps are participant-driven professional learning. In this session, math instructional coaches will gather together to discuss topics such as, how to help the struggling teacher, how to support teachers who have more years experience than you, how to use data to impact instruction, how to enroll teachers in coaching cycles, and anything you would like to ask other coaches about."
Lights! Camera! Principles to Action!	"In Principles to Actions, NCTM set forth a set of research-based actions for all teachers, coaches, and specialists in mathematics; all school and district administrators; and all educational leaders and policy makers. These recommendations are based on the Council's core principles. We have developed Innovation Configuration (IC) maps to provide clear pictures of what an ideal state would look like in each of these principles and descriptions. In this session, we will explore the IC map developed for ""Using and Connecting Mathematical Representations."""

Extended Sessions, Monday, 3:00 - 5:00 PM

Sense Making: Is It At the Core of Your Classroom?	The National Resource Council points to a "productive disposition" as one of the key strands of mathematical proficiency. A major part of this strand is viewing mathematics as something that makes sense. Are your students making sense of the mathematics they explore? Do they feel that mathematics is an inherently sensible endeavor? We'll look at ways in which students don't make sense of mathematics, consider why, and discuss strategies for making it a larger part of the expectations in your classroom.
Becoming Fluent in Developing Procedural Fluency	Principles to Actions (NCTM, 2014) describes eight effective teaching practices that support student mathematical learning. We will zoom in on one of these: "Build procedural fluency from conceptual understanding," and see how we can build such fluency into our teaching practices. Specifically, we will explore 5 big ideas and 5 research-based instructional strategies that improve students' procedural fluency (and conceptual understanding).
Integrating STEM Learning Through Mathematics, Modeling, and More	All students need more STEM knowledge than ever, starting with quantitative reasoning and scientific thinking. And many students need to be prepared for STEM careers. K-12 mathematical modeling offers a rich opportunity to integrate math and STEM. Let's help every student learn to think, reason, and solve rich problems in math, STEM, and more.

Monday, 4:00 PM - 5:00 PM

#gotmathRtI?	Do you wish you had a different way to teach or re-teach concepts? Do you want screening and progress monitoring tools that align to the TEKS? Come hear how one district created workable screening, monitoring, and aligned instructional resources to move students forward in mathematics.
Effectively Using an Interactive Subject Notebook—Make and Take	"In this session, you will learn how to effectively manage the use of the Interactive Subject Notebook (ISN) in a middle-school classroom. Participants will practice creating an ISN during this session. All participants will receive access to the presentation file as well as digit copies of ISN components."
Middle School Transformations with TI-Nspire App for iPad	"How can I make the algebraic representations of transformations on the coordinate plane make sense for my students? Participants will use ELL strategies of speaking and writing to ""program"" the Nspire and make transformations come alive."
Using Struggles and Mistakes as Launching Pads for Success	"In this presentation, we will interactively discuss the importance for teachers to cultivate a learning environment where students have the opportunity to struggle without penalty, how to validate students' mistakes as learning experiences, and how praise their effort more than their outcome. We will discuss research-based best methods used to effectively create a culture of learning where students are fearless in their pursuit for greatness. We will also explore ways to sustain that mode of thinking consistently throughout a school year. Participants will gain new knowledge, strategies, and tools that can be implemented immediately to encourage students to embrace the growth mindset in math. Imagine a classroom where students are willing to struggle, welcome mistakes, and value the process as well as the product."

Word Walls Through the Eyes of an "MLL" #mathlanguagelearners	"Experience an interactive, engaging lesson through the eyes of a Math Language Learner. From the moment you enter our ""classroom,"" you will travel bell-to-bell through a vocabulary-rich lesson, beginning with a collaborative warm-up, all the way to an exciting exit ticket. Our focus will be on incorporating vocabulary in each lesson element using word walls, anchor charts, and student-centered activities. #gotwordwalls #mathlanguagelearners #vocabonfleeek #flasbacktomiddleschool"
Sticky Composites	"Participants will engage in activities designed to develop an understanding of finding the area of composite figures for their students. Students will investigate, explore, and analyze composite figures through the use of tape, along with the use of a graphic organizer to support their learning. Teachers will receive ideas and materials they can use in their own classes."
Middle School Activities Using the TI-84 Plus Graphing Calculator (TI)	This hands-on session will feature calculator activities to support middle school math instruction. Activities will focus on the Grade 6-8 TEKS. Topics will include multiple representations of data, graphing, fraction computations, conversion, solving equations, and much more.
Perfectly Portioned Percents—Constructing Meaning from the Part and the Whole	"During this interactive, modeled lesson, participants will explore the construction and deconstruction of images and numbers to develop the concept of 100%, then transition into the use of the percent bar model and the connection to the proportional representation. (Readiness standards 6.5B and 7.4D)"
Building Concepts: Expressions and Equations	"This hands-on session will feature TI's Building Concepts in Mathematics resources and the TI-Nspire™ CX Technology. Building Concepts in Mathematics is a series of lessons that cover essential, foundational mathematics concepts—like expressions and equations. Activities will focus on TEKS for Grades 5 through 8. Attendees will receive samples of lessons and activities that can be used with the TI-Nspire™ technology."
Breaking Out of the Norm	"If you'd like to create mathematical conversations and get your students to enjoy reviews, you need to come on over! At the very least, you leave with a ready-to-use lesson/activity. Experience an escape room by using a breakout box—learning firsthand how this activity can engage all learners to be mathematically productive! Participants will also create tasks for an escape room to try in their own classrooms. Additionally, effective and efficient formative assessment strategies to use during the activity will be provided. A detailed lesson plan will be provided to all participants, as well as online resources to access when planning their own escapes!"
Using a TI-Nspire CX for Success on the STAAR Math Grade 8 Exam	This hands-on session will feature the use of the TI-Nspire CX handheld as a tool to explore items on the recent STAAR Math Grade 8 exam. Learn several strategies on how to assist students as they problem solve their way through some of the more commonly missed Release Test items. See how the technology can help students analyze data and statistics and make predictions.
Only the Strong Survive	"Are you running your classroom, or is your classroom running you? In one hour, walk away with effective management techniques, not gimmicks, that you can use on Monday!"
What is Really in the Bag?	This is a make-and-take session that demonstrates a new way to help students visualize the real number system. We will be creating manipulatives for use with released STAAR questions on classifying numbers. Participants will be able to take the manipulatives for use in their classroom.
Simple Centers, Seriously?	"Preparation, classroom management, differentiation can all make using centers a challenge. Come learn new strategies and share ideas to make center learning meaningful for students and realistic for the teacher. See new tools from ETAhand2mind to engage your students. Get free manipulatives that you can start using in class right away."

Data-Driven Math Instruction	"Apply the best practices of a former NASA system engineer to the design of effective and research-based learning experiences for students. Encounter a systematic approach to incorporating vertical alignment, establishing teacher and student clarity, analyzing student work, and integrating high-yield instructional strategies into every unit of study. Participants will learn the four critical components of an effective data driven instructional system, engage in sample activities that demonstrate the connections between systematic instructional planning and lesson delivery, hear testimonials about improved job satisfaction and teacher morale as a result of systematic instructional leadership, and leave with practical next steps that can be immediately applied to their unique educational environment."
Learning Targets - Helping Students Aim for Understanding	"The first thing students need to learn is what it is that they are supposed to be learning. Sharing learning targets and criteria for success is the fundamental formative assessment method, upon which all the others depend. Learning targets are often characterized as simply instructional objectives in student-friendly language. This is not true! A learning target is only a target if students are aiming for it, and a learning target is tied to what students actually do in an individual lesson. Participants in this session will discover strategies for helping students answer the question "What am I supposed to be learning?" Participants will learn to: -- View a learning target from the student's point of view -- Make learning targets ""live"" in a lesson -- Use success criteria (student look-fors) to develop assessment-capable students"
Strike 1, Yerrrrr Out!	"Repeated warnings in a mathematics classroom do nothing more than empower students to push a teacher to their breaking point. The power in the classroom shifts as teachers lose control. Teachers are frustrated, everyone loses, and precious instructional time is lost. Learn how to get that time back! Introduce a new approach to discipline in your mathematics classroom that teaches your students to recognize their own behavior problems once they lose focus. The result is a happier classroom with increased math achievement! Stop writing referrals, drop bad behavior, and roll on with instruction!"
Naming Problems—A Strategy for Solving STAAR Math Test Items	"Naming problems helps students read STAAR word problems actively by giving them a concrete task: to identify what is given and what is asked for. Naming can help students see a problem's larger structure, and help them move forward in solving it. Using released STAAR test questions, we will model this problem-solving strategy and show ways you can apply it in your classroom."
Conceptualizing Multiplication	"Multiplication is traditionally taught as a series of procedures that students follow. By shifting the focus in mathematics from procedural to conceptual understanding, learners are able to reason mathematically, allowing flexibility and creativity in the way they approach multiplication. Join us as we critically explore the concept of multiplication by looking at transferable big ideas that underlie this concept. Knowing these big ideas will allow learners to multiply with all number forms, including algebraic expressions, in ways that are deeply rooted in the concept of multiplication itself and bring true understanding to what is typically viewed as a collection of various procedures to be memorized."

Opening Sessions, Tuesday, 8:00 AM - 9:30 AM

Math and Democracy	Should the government increase the minimum wage? How have global temperatures changed over time? How much should health insurance cost, and who should buy it? As a country, we seem increasingly unable to discuss issues that matter. Instead of engaging with one another thoughtfully and respectfully, we rely on partisan news to reaffirm our beliefs and social media to retreat deeper into ideological silos. Fortunately, math teachers can help. Mathematics is the language of logic and reason, and math class is a place where students can discuss the most important topics facing society. In this presentation, we'll use math to explore one such topic...and from a variety of perspectives. With civics no longer taught in many schools, it's up to math teachers to help students become the thoughtful, analytical citizens our democracy depends on.
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Six Spheres of Influence for Mathematics Teaching and Learning	When teachers are instructional leaders in their schools there are positive outcomes. Effective leaders of mathematics teaching must know what to promote in instruction. Effective leaders must be “critical consumers” of the structures and practices imposed on teaching practices to prevent the support of requirements that could inhibit student achievement in mathematics. This is best accomplished by understanding leaders’ six spheres of influence in mathematics teaching and learning. Dr. Juli Dixon models best practices as she shares these six spheres through the exploration of mathematical tasks and how to plan for them as well as through the use of authentic classroom video. Objectives: - Make sense of six spheres of influence to support students to engage in rigorous mathematics standards, - Explore productive strategies to increase student achievement in mathematics, and - Create a shared image of best practices in mathematics teaching.
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Extended Sessions, Tuesday, 10:00 AM - 12:00 PM

When Math is Not Their Favorite Subject; Be Their Favorite Teacher Part I: Creative Practice	As math teachers, many times we have students in our classes that do not 'like' math. That makes our job tougher than it already is. One option you DO have with these students is to be their favorite teacher. This session will include ideas for setting up student groups, managing student groups, and implementing stations in your classroom.
Applying Math to Engage with the World in Middle School	Is there an upside to negative emotions? Do people prefer a low price or the illusion of a deal? How is income distributed in the U.S. and how should it be? The world is an interesting place full of interesting and important questions. Math class is the perfect place to explore them. Join the founder of Mathalicious, Karim Ani, to explore one of these real-world applications using middle school mathematics. Leave ready to facilitate one of these applications with your classes in a way that feels authentic, sounds conversational, and is mathematically rich.
Planning and Facilitating Problem Strings	How do you plan to facilitate powerful instructional routines? What are the important teacher moves in making the lesson format of Problem Strings work well? A Problem String is a powerful lesson structure where all students learn, have access to the problems, and are challenged. The success hinges on the teacher's purposeful question order, class discussion, and modeling student strategies to build connections. In this extended session, we will unpack the planning process so you can learn to facilitate strings in your classroom. You will participate in rehearsals, where the teacher makes important teaching moves explicit as the problem string plays out. Want to get your students really thinking and mathematizing? Come join us!
Feeding Your Inner Mathematician through Math Teachers' Circles	Counting the number of ways to decompose a number into sums is an accessible but challenging puzzle. In this general interest session (particularly geared for elementary teachers), we will "feed our inner mathematicians" by exploring various ways to represent sums and the patterns that emerge from them, and see how changing our point of view can help us get started on a novel problem! Through investigating this problem, we will also introduce the format of a Math Teachers’ Circle (MTC). MTCs are communities of K-12 teachers and higher-education professors who meet regularly to investigate mathematics together. A growing body of research suggests that MTC participation increases mathematical knowledge for teaching, supports healthy teacher mindsets, contributes to greater professional engagement, and increases the use of high-leverage classroom practices that promote student learning. Based at the American Institute of Mathematics, a research institute supported by the National Science Foundation, the MTC Network provides centralized mathematical, organizational, and mentoring resources for a growing national community of MTCs.

Tuesday, 10:00 AM - 11:00 AM

Developing Algebraic Thinkers Through Differentiation in the Middle School Classroom	People say that children of various ages can think algebraically. How do you do this in a middle school classroom with students who have a wide range of abilities? Through deliberately designed differentiation! Join us to explore rich math prompts from the book, "Fostering Algebraic Thinking," while using innovative methods of cooperative learning stations to challenge and support students toward success! You will leave this session with the confidence to meet the needs of your diverse learners!
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Dividing Fractions: Flipping Not Needed	"Have you had students say, ""Don't ask why, just flip and multiply!""? Then, when asked why the strategy works, the students are stumped? In this session, you will learn how to build on students' prior knowledge of division and intuitive behaviors to improve numeracy skills to teach fraction division."
Incorporating Interactive Notebooks With Differentiated Learners	"So you want to use Interactive Notebooks in your classroom (or you already are), but you wonder what to do to differentiate for the students in your classroom. Come join me as we model some quick and easy implementation techniques that you can take back and use right away without fail to make your Interactive Notebooks ""Rock The Socks"" off your students and their parents!"
Meeting Environmental Challenges with Math	"In this STEM-focused workshop, discover hands-on activities that use real-world data to create mathematical models as a way to understand trends in land use, population growth, climate change, and more. The presented activities build students' understanding and skills in algebraic patterns and functions, decimals, fractions and ratios, and linear measurement, as well as number operations and problem solving. The activities incorporate data on trends in the environment, global demographics and natural resource use. In this interactive session, participants will work in cooperative groups, using manipulatives to model math concepts and visually displaying data with graphs. Everyone will receive lesson plans and background resources."
Slope and y-Intercept—Grade 8 Mathematics	"Experience activities on slope and y-intercept designed to narrow academic gaps. The lesson will include purposeful small-group intervention strategies to facilitate learning for a broad range of students, including English Language Learners and students at risk of failing."
Building Student Discourse in Middle School Mathematics	"Do you wonder what students engaged in mathematical conversations sound like? During this interactive session, learn about and participate in strategies to get your students talking about mathematics."
Sticky Composites	"Participants will engage in activities designed to develop an understanding of finding the area of composite figures for their students. Students will investigate, explore, and analyze composite figures through the use of hands-on experiences, along with the use of a graphic organizer to support their learning. Teachers will receive ideas and materials they can use in their own classes."
Fraction and Proportional Reasoning Activities for Grades 6-8 TEKS (TI)	This hands-on session will feature TI's Building Concepts in Mathematics resources and the TI-Nspire CX™ Technology. Building Concepts in Mathematics is a series of lessons that covers essential, foundational mathematics concepts – like fractions, ratios, and proportions. Activities will focus on TEKS for Grades 6 thru 8. Attendees will receive additional information on other middle grades activities that can be used with the TI-Nspire technology.
Safecracker Challenge—A Twist on an Escape-Room Challenge	"Everyone loves escape-room challenges, so why not try a new twist on this in your math classroom? It's not really that they're trying to break out of your room. It's more like they're trying to break into various locks and boxes in your classroom using their math skills and cooperative team work. I tried it for the first time with my junior high algebra (7th grade) and geometry (8th grade) classes this year. Come hear about what I used, the cost, free resources on the Internet, and how it went. This is for teachers who want to have some crazy fun in their classroom!"
#MiddleSchool #MathWorkstations #YesPlease!	"Are you looking for ways to make your middle-school mathematics classroom more student-centered? #MathWorkstations! Engage students in purposeful station activities that focus on #problemsolving and #HOTS through writing prompts, foldables, games, and technology. Students can work alone, with a partner, and in groups to refine their understanding of key math concepts. Participants will leave with workstation ideas and activities!"
#EngagedtoMath	Do you want to get your students engaged in class discussions and activities? Do you need some new and refreshing ideas? Come join us as we examine various techniques and strategies to get your students truly engaged in math and mathematical conversations in the classroom. Classroom-ready ideas/materials will be provided. Come prepared to share any ideas you may use in your classroom.

Anticipation Guides in Mathematics	"Let's leverage what we know about high-quality literacy instruction by utilizing anticipation guides for mathematics. As pre- and post-assessments, these tools can facilitate access to prior learning, promote discourse, and foster a growth mindset with students in K-12. Careful questioning can open the door to responses from all students and the use of images and reduced text can remove barriers so they may access the content. I will share examples of anticipation guides and provide access to these tools digitally as well."
Connect 4: Considering Connections for the Progression of Mathematical Ideas from Grade to Grade	"The Connect 4 planning process aids educators in distinguishing between enduring concepts and procedural computations—the latter often replacing deep mathematical learning. Often in mathematics, big, universal, mathematical ideas are segmented into bite-sized pieces, never allowing students to make connections back to previous learning. In this session, participants will explore one of the Connect 4 connections. Participants will take a deeper look at the vertical connection by engaging in a sample math concept and the connections that create a coherent mathematical idea and leave equipped to replicate the process with other mathematical ideas."
Fold with Focus: First Steps and Decisions with Foldables®	"Do you wonder where to begin implementing Dinah Zike's Foldables® in your classroom? Do you leave a Foldable session motivated and inspired, then find yourself overwhelmed at the prospect of using this highly-effective strategy with students? This session is for you! Clear hurdles to implementation in this highly engaging and interactive presentation. Leave ready to address TEKS standards, vocabulary, and more—find your focus with Foldables®!"
Two Pedagogy Game Changers: Spaced Repetition and Accelerated Math-Fact Mastery	"The session discusses two symbiotic pedagogical methods to accelerate students 'back to grade level' and increase the instructional efficacy classroom teachers for grades 1-8. The presentation highlights a differentiated spaced repetition system that affords instructional flexibility in conjunction with a differentiated numeracy system, an existing paper-based warm-up system and a rapid mastery of grade level math process skills. The presentation will also focus on accelerated math fact mastery in conjunction with daily numeracy and teacher-focused spaced repetition for all four math fact operations. The success of these instructional techniques have produced two (2) National Blue Ribbon Schools. Both urban Title 1 elementary schools were also selected and featured as "Profiled School for Academic Excellence" on the United States Department of Education Blue Ribbon website."
We Like to Party! And by Party We Mean Teach Math!	Come see how much fun teaching math can be! Learn mathematical card tricks, dice tricks, number tricks. Re-spark your enthusiasm to teach math knowing that enthusiasm is contagious and your students will be loving your class! There is a free deck of cards to all participants.
Wild 'n' Wacky Workstations (K-5)	"During this hands-on and engaging session, teachers will learn how to incorporate TEKS-based workstations related to number relationships, number operations, and algebraic reasoning to increase student engagement. These workstations incorporate higher-level thinking skills, problem solving, student accountability, and are just plain fun! Activities utilize materials that are low to no cost, so start collecting! Participants will walk away with a QR code and links to plentiful workstation games and activities."
I Hate Math... When Did This Happen?	"As students progress from elementary through to high school, it seems that many of them lose their zest for learning mathematics and problem solving. When does this change in attitude occur and why? This study investigates the math attitude of 5th and 6th grade students and quantitatively compares multi-year and multi-district data. Also, qualitative data is used to pinpoint some causes of this change in attitude."

Tuesday, 11:30 AM - 12:30 PM

Embracing and Overcoming the Struggle	"If you never make a mistake, you never learn anything new. Embrace the struggle with us in this session about struggling learners. We will explore some really hard questions and come up with new ways to tackle and overcome struggle. We will build grit and confidence that can be shared with your students"
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Hands-On Mean Absolute Deviation	Get a hands-on experience with Mean Absolute Deviation. Learn how to take students from an abstract concept to a hands-on, engaging concept while using their favorite tools, candy!"
Making Sense of Numbers with Number Lines	Participants will explore the use of number lines to model mathematics and to engage learners in making sense of numbers. We begin with a look at how number lines are used in elementary and then connect that knowledge to what students are doing in the intermediate math class. You will leave with ideas to bring the number line to life with your students.
Students, Take the Wheel—Driving Personalized Learning with Data	"Teachers have been using formative and summative data to drive their instruction for a long time. It's a known fact that interpreting and understanding data helps teachers understand how students learn and how best to meet their needs. What would happen if the students were given that power? What would happen if we allowed them to identify, analyze, and use data from their learning? This session is all about empowering students to accurately assess their current level of proficiency in the classroom and be active agents in their data driven personalized learning."
Making Middle School Math Marvelous	"So, you're teaching middle school math, but you're not sure how to make the lessons/activities engaging? Come learn about different strategies/techniques that will be sure to make it a great day to be inside of your math classroom!"
Blended Possibilities	"Even though many of us don't have technology-rich classrooms, the rapidly evolving education landscape increasingly requires us to incorporate technology to customize student learning. Blended learning, with its mix of technology and traditional face-to-face instruction, is a powerful student-centered approach to provide customized education for all students. In this informative session, strategies will be shared with teachers and instructional leaders on how to effectively implement blended-learning into their instruction."
Transforming Algebra Tiles	As teachers, we are encouraged to engage students in the concepts before moving toward the standard algorithm (NCTM, 2014). This often includes using manipulatives, such as algebra tiles, for teaching algebraic generalizations of the operations. However, sometimes these hands-on representations turn into procedures in and of themselves. In this session, we include the building of conceptual understandings of multiplication involving integers and polynomials. We model this by integrating algebra tiles and the coordinate plane.
Exploring Equations and Relationships with TI-Nspire in Junior High (TI)	Participants will experience activities using the TI-Nspire CX and Navigator system that will build student understanding of the expressions, equations, and relationships TEKS strand. Participants will leave with ideas for how to use this technology in the 5E instructional model and knowledge of where to find additional resources.
It's All About the Base—No Trouble!	"Got Base? Come see how we use multiple representations and technology to engage students, maximizing their success with the development of Base using area, composite area, nets, and how they connect with the STAAR Chart, volume, and surface area."
Within and Between Ratios	How do within and between ratios relate to similar figures? Come experience an activity that uses multiple representations and student discourse to clarify the difference and the meaning of each ratio for students.
Developing the Whole Teacher Using Social Networks	"Like students, teachers have social and emotional learning (SEL) needs that are key to their development. School and districts have begun work around student SEL, but little has been done to look at teachers' SEL needs within professional development. This session will examine just how important these needs are for teachers, as well as ways social media can provide support. Let's use the full potential of social networks to develop and change teaching practices for greater student achievement!"

Innovatively Teaching Solving Equations Through Real-Life Applications	"Technological advances are making traditional procedural focused worksheets antiquated. In addition, these traditional worksheets do not effectively engage students nor build their authentic problem-solving skills. In this workshop, participants will learn how to transform the concept of 'solving equations' into fun hands-on activities, real-life application scenarios, and collaborative projects that will help students formulate a profound insight and conceptual understanding of solving equations. Participants will be provided with tools and resources that can immediately be utilized in their respective classrooms."
It's All About Culture	As rigor increases in the classroom, student engagement becomes critically important. This session will introduce activities that involve students in the learning process. From the very first day, students will begin to take responsibility for their own learning and accept the challenge of independent thought, even when collaborating. This fosters a culture of teachers and students learning from one another in an environment of active engagement.
Next Steps on TI-Nspire CX for Intermediate Users	Have you started using TI-Nspire, but know you could be doing so much more? During this hands-on session, attendees will use the TI-Nspire™ CX to explore a variety of 6–12 grade concepts to support instruction of the TEKS. The session will also focus on many TI-Nspire features including multiple and linked representations of data to dive deeper into mathematical thinking. The TI-Nspire™ CX Navigator System will also be used for instruction.
Integrate Problem Solving, STEAM Connections, and Formative Assessment	"Evidence has consistently indicated that traditional mathematics curriculum and instructional methods are not serving students well and fail to prepare them for an accredited undergraduate STEM degree program and high-paying STEM-related careers. Instead, students face barriers that impede engagement and motivation in mathematics education, including learning anxiety. Come see how integrating math topics, using relevant, worthwhile problems, real-world STEAM connections, and authentic assessments used in the classroom on a regular basis help develop mathematically proficient students who have a positive disposition towards math."
Tips and Tricks on the TI-84 and TI-84CE(color) for Grades 7-12	For new and experienced users, learn several creative ideas to utilize the TI-84 and TI-84CE (color), much more effectively, develop conceptual understanding, use the 84 as an evaluator of complex expressions easily, trace on a graph and table simultaneously, use color photos to teach transformation graphing, and much more. See how to fully utilize the TI-SmartView graphing-calculator emulator.

Extended Sessions, Tuesday 12:30 PM - 2:30 PM

Engaging Tasks + Powerful Questions = Lesson Magic in the Form of +/- 8 Slide Lesson Guides	Most of us struggle to craft and implement effective mathematics lesson that live up to the high expectations of the 8 Mathematics Teaching Practices found in Principles to Actions. We'll explore a development process and some examples of +/- 8 slide lessons that have emerged from the process and that guide the planning and implementation of great lessons.
Helping students make up their minds: How to create better puzzle-solvers in & beyond mathematics	Here's a Puzzle: How can we joyfully and impactfully engage our students so that they will thrive in their math courses as well as in life? How can we inspire our students to appreciate the beauty and power of mathematical thinking? Here we will offer some practical strategies of thinking that will allow our students to not only make greater meaning of mathematics, but use those mindful practices beyond their math classes and for the rest of their lives. We will illustrate these thinking practices through some illustrative puzzles.

Tuesday, 1:00 PM - 2:00 PM

An Active Math Classroom	Are you looking for ways to meet the academic needs of individual students? Do you have some students who need to just practice and some who need to extend their learning? Explore ways to structure instructional time to personalize learning for your students. Learn about different strategies that can help promote an active thinking classroom.
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Building Computational Fluency With Focused-Practice Sets	"What assignments do you provide that help students develop fluency? How effective are your computational fluency practice sets? If you are finding that the practice sets you're using are not getting the hoped-for results, you may benefit from a different approach to selecting or designing them. This session will share the latest research on developing computational fluency and provide sample assignments that apply these recommendations. In our remaining time together, you'll team up to use these new strategies to create your own problem sets."
Fusing Fun and Energy with Algebra and Financial Literacy 6-12	"MoneyCamp is an interactive program that infuses interaction and energy into algebra and financial literacy! It begins with our human-sized, board game called Road To College Success that's prepares students for college life. Players walk around the board registering for classes, managing money, and discussing "risky" scenarios that could arise on a college campus. Middle schoolers play the Budget Mania game that merges algebra with money management. With more fun tools like: "Let's Do a Deal" and "Busy Banking," we teach students financial literacy in a fun, practical way. http://winmds.com/workshops "
8th Grade: Are You Ready for Readiness?	"How can we really be sure we are getting our students Ready for the Readiness standards on the 8th grade STAAR exam? In this session, we are going to look at how they really test the Readiness standards by looking at the last few most recently released STAAR exams and comparing the Readiness standards side by side while answering some key questions about each one. For example: What kind of questions are our students missing, and why? Can we plan ahead to help our students prevent those mistakes? Can our students apply these strategies themselves to assess their own progress and learn from their own mistakes? While we are looking at the 8th grade test specifically in this session, any grade level is welcome to join us. These strategies can be applied to any grade level."
Seeing is Believing! Real Math. Real Teachers. Real Classrooms.	"T-TESS aims to support instruction that is student-centered. Transitioning instruction from teacher-centered to student-centered is not straight forward. As Deborah Ball once said, "Changing one's teaching is not like changing one's socks" (Ball & Cohen, 1990, p. 163). In this session, participants will hear first-hand from middle-school teachers about teaching proportional reasoning, algebraic and geometric thinking, and statistics using problem-solving tasks. We will share these tasks, along with student work, and reflect on the process of transitioning from teacher-centered instruction to more student-centered instruction. Finally, we will demonstrate how using these tasks during instruction supports the dimensions in each of the domains of T-TESS."
A Few of My Favorite Things— Tips From a Veteran Teacher	"Veteran teachers share tips, tricks, and tools to help you make the most of your school year! Information shared will help you organize your classroom, create a positive learning environment, and build relationships with your students."
Get Your Math Class Groovin'	How can you engage all students when there are so many levels in a class? Come experience active classroom strategies to get students discussing math and engaging deeply in the content at hand. Math class is the place to be!
I'm a Math Leader: Now What?	"Are you a math leader on your campus? Is this your first year as a math coach? Then, come join us as we share our lessons learned and different tools that have helped us succeed in this dynamic role in elementary mathematics."
Increasing Equity: Structures and Strategies that Promote Productive Conversations	"Do you want to advance equity and improve achievement for each student in your school or district? How do you set the stage for discussions around challenging the status quo and advocating for change? Purposeful action is needed to identify, acknowledge, and overcome disparities in access to high-quality instruction and instructional resources by demographic. Come explore structures and strategies that promote honest and reflective conversation about the reasons achievement gaps exist and the need for high-quality instruction that allows each student to maximize their potential."

Innovatively Teaching Solving Equations Through Real-Life Applications	"Technological advances are making traditional procedural focused worksheets antiquated. In addition, these traditional worksheets do not effectively engage students nor build their authentic problem-solving skills. In this workshop, participants will learn how to transform the concept of 'solving equations' into fun hands-on activities, real-life application scenarios, and collaborative projects that will help students formulate a profound insight and conceptual understanding of solving equations. Participants will be provided with tools and resources that can immediately be utilized in their respective classrooms."
Walk the Number Line for Research-Based Results for K-5!	"Elementary learners need a number line for powerful math concepts like skip counting, adding on, alternative algorithms for regrouping, making change, elapsed time, rounding, factoring and fractions! Number lines are the most frequently discussed math tool to achieve the TEKS. You will be amazed at the unique strategies that Kathy Collins of Kim Sutton Associates will use with this tool! You will be ready for action with all the latest ideas for teaching every area of mathematics using number lines!"
The Three "I"s to Mathematize Anything	"Math is everywhere and in everything, yet we only see it in the classroom with paper and pencil. Let's explore the three ""i's"" to supercharge anything to become a math experience that enhances engagement and learning for all."
Formula Chart Fixes	Are your students struggling with academic vocabulary and are unable to make the connection between the lessons experienced in class and the problems used in summative assessments? Learn to use the STAAR/EOC Reference Chart to help students make the connections between content terminology and successful application. Join us for a hands-on session of converting your grade-level reference chart into an instructional tool students can personalize and adapt to not only master concepts throughout the school year, but achieve success on high stakes state-level assessments as well.
Where's the "On" Button?—The TI-Nspire CX for Absolute Beginners	This hands-on session will explore basic features of the TI-Nspire CX handheld to support classroom instruction of the TEKS. Become familiar with all the built-in applications, and learn how to navigate around the handheld and through documents. This is truly for beginners. Handhelds will be provided, but feel free to bring your own.

Tuesday, 2:30 PM - 3:30 PM

A Framework for Supporting Students: Data Analysis, Grade 6	"Experience classroom-ready activities that integrate research-based instructional strategies designed to narrow academic gaps related to summarizing and interpreting data. Purposeful small-group intervention suggestions are incorporated to facilitate learning for a broad range of students, including English Language Learners and struggling students."
Making Math Meaningful, Not Just to Many, But to All!	"The Quantile Framework for Mathematics helps an educator to differentiate instruction and monitor growth in mathematics, putting students on the path to success in school, college and career. Quantile measures provide a scientific approach for matching students with ability-appropriate resources. Because student Quantile measures tell you which skills and concepts your students are comfortable with, you can personalize learning for those students and follow their progress. During this session, we will explore resources, curriculum standards, and numerous activities that K-12 educators have available to them. All of the resources are free."
Spiraling to Success	"For math to be meaningful and memorable, concepts must be revisited on a regular basis. Spiraling, Wall Work, and vocabulary-development strategies come together to provide intentional, cyclic practice in an active and engaging format. Participants will receive access to download a set of Wall Work cards to start the new school year Spiraling to Success. Materials are appropriate for sixth grade through Algebra I. Concepts are appropriate for all grade levels."
Math Workshop—Getting Started and Making it Work!	"Are you wanting (or needing) to spend more time in small groups with your students focusing on skills that need deeper and further investigation? Are you wanting to differentiate on the regular, but don't know where to start? Come join me in this workshop, where I share some of my tried and true strategies and tips to help implement Math Workshop (also known as Work Stations) in your classroom today, so you can set your scholars up for success!"

Making Stations Work in the Middle Grades	"Stations are not just for elementary school. I will share with you all of my tips and tricks for making stations a routine in your classroom. This session will focus on why stations work in the middle grades, how to get started with stations, station setup options, station prep, organization and storage, classroom management, using stations for differentiation, options for station resources, assessment options, and more!"
So That's Why We Say Invert and Multiply	"Frequently, students learn an algorithm ""just because"" that's how it's done. When dividing rational numbers, it's typical of students to ask why we invert and multiply, or why is the quotient sometimes larger than the divisor? As we incorporate various models, including the use of Texas Instruments technology and paper/pencil, we will resolve these, and other mysteries regarding the multiplication and division of rational numbers."
Bringing Some Positive Into Teaching Negatives!	No need to fear negative numbers! This session will focus on modeling integer operations in a real-world context to help struggling students bridge the gap between concrete and abstract. Teaching students how to compute with integers is a pivotal point in math, but so often jump right into rules and procedures. Do you wish you had a way to build students' conceptual understanding instead? During this session, a variety of kinesthetic, tactile, and visual games will be shared and attendees will go home with ready-to-use activities in the classroom.
Hook 'em In: How to Make the Textbook More Engaging	"Whether you are required to use the textbook for your curriculum or rely heavily on the textbook as your go-to resource, this hands-on session will highlight strategies for increased student engagement and interaction. Come learn interactive ways to transform the textbook into captivating activities for students. Before and after samples will be shared, along with complete instructions."
#gotlinear!	We will experience and discuss student-ready activities that address linear relationships in the middle-school math TEKS. Participants will be granted electronic access to all activities.
Creativity vs. STEM	Where does the creative impulse belong in STEM education? Why are tech companies recruiting Liberal Arts majors? Is mathematics still the fundamental part of STEM? If so, why is it so often taught without any challenge to demonstrate creative thinking? MIND Research Institute's Vice President of Content Creation, Nigel Nisbe, will demonstrate how using innovative technology based on neuroscience and motivational research can transform the learning process of mathematics for students, teachers, and parents.
So You're A Math Coach—Now What?!?	"This session will affirm all of your struggles and successes as a new math coach! We will focus on relationship building with your team, decoding an instructional coach menu of services, and sharing best practices via sample forms, videos, and real experiences."
Use Discourse to Access English Learners' Language and Mathematics	"Discourse in the classroom will increase English learners' productive and receptive language functions and their comprehension of mathematics concepts. All students need to reason, construct viable arguments, and critique the reasoning of others. Increasing discourse will support students' language development as well as their learning of rigorous mathematics as they engage in these practices."
Three Act Math Tasks with TEKS!	"Dan Meyer's Three Act Math tasks include engaging students through an entry event, providing more information, and setting up for extension lessons. Come to this session to experience some sample Three Act Math tasks and learn how to use them in your classroom. This session will also provide participants with a link to a crosswalk of Three Act Math tasks that are aligned to the TEKS."
Influence. Impact. Grow. Lead.	"Are you leading with or without a title? Are you wanting to lead? Let's explore ways to become a leader of influence, impacting efforts within a team, campus, or district. Let's collaborate to consider ways to encourage growth for ourselves and our colleagues to positively impact students and their learning."

Extended Sessions, Tuesday 3:00 PM - 5:00 PM

I'm Confused: Supporting Students who Struggle	This hands-on session will integrate ways to enhance instruction through engaging tasks and use formative assessments to create more opportunities for students who struggle to understand the mathematics at both conceptual and skill levels. We will explore how to change a mathematical task to allow access for these students, without changing the rigor or the grade-level content. Progress monitoring assessments that focus on conceptual understanding will be included in the session. Algebraic and quantitative reasoning and skills form the foundational mathematical content for the session. Participants will engage in tasks and investigate how a questioning framework can change a skill task into one that enhances student understanding and promotes stronger engagement.
Feeding Your Inner Mathematician through Math Teachers' Circles	Counting the number of ways to decompose a number into sums is an accessible but challenging puzzle. In this general interest session (particularly geared for elementary teachers), we will "feed our inner mathematicians" by exploring various ways to represent sums and the patterns that emerge from them, and see how changing our point of view can help us get started on a novel problem! Through investigating this problem, we will also introduce the format of a Math Teachers' Circle (MTC). MTCs are communities of K-12 teachers and higher-education professors who meet regularly to investigate mathematics together. A growing body of research suggests that MTC participation increases mathematical knowledge for teaching, supports healthy teacher mindsets, contributes to greater professional engagement, and increases the use of high-leverage classroom practices that promote student learning. Based at the American Institute of Mathematics, a research institute supported by the National Science Foundation, the MTC Network provides centralized mathematical, organizational, and mentoring resources for a growing national community of MTCs.
Making the Connection: Linking Concepts and Procedures	Concepts and procedures are most valuable when they are connected. Engage in experiences designed to bridge concepts and procedures. Explore three critical components demonstrated as essential for connecting concepts and procedures in grades K-12. The three components for bridging concepts and procedures are to: (1) Know the mathematics; (2) Choose the right tasks; and (3) Make the connection explicit. Make sense of the three components through tasks, classroom video, and discussion. Objectives: Participants will: - Delineate between concepts and corresponding procedures through tasks; - Examine three components for supporting K-12 students to connect concepts and procedures; and - Develop a shared image of these components through classroom videos.

Tuesday, 4:00 - 5:00 PM

Algebraic Reasoning: Solving and Building Puzzles	"This session introduces mobile puzzles as a fun and intuitive context for reasoning about solving equations using equivalence, subtraction, division, and substitution. It focuses on the use of mathematical puzzles, explaining why and how puzzles can help to develop the logic needed for strong algebraic reasoning and foster mathematical habits of mind, in particular, the puzzling and persevering habit of mind. The puzzle types featured include Who Am I? puzzles, mobile puzzles, Mystery Number puzzles, and Latin square-based puzzles."
Getting Deeper with Discourse	"Are you ready to get your students talking, taking risks, and making discoveries? Come learn strategies for students to justify, connect, and compare their mathematical reasoning while engaging in powerful discourse. Experience proven classroom activities that will challenge students to defend their thinking using rich and meaningful tasks. Digital resources will be available upon request."
Helping Students Succeed with Geometry Through the Use of Manipulatives	"Do your students need some hands-on activities to help develop their understanding of geometry concepts? Discover the benefits of using manipulatives for geometry. Ideas will be shared for area, perimeter, volume, properties of shapes, transformations, and more!"
Linking Research to Practice: Proportional Reasoning and Embedded Professional Development	"Proportional Reasoning provides foundational knowledge for algebra and geometry. Cognitively Guided Instruction (CGI) research demonstrates that teachers' knowledge of problem structures and problem-solving strategies is key to effective mathematics instruction. Situated within CGI, we share how this research informed our work with middle-school teachers, and its impact on teachers' instructional practice and content knowledge."

Mathematical Argumentation in Four Parts	"The ancient art of mathematical argumentation is essential for today's middle-school students, yet it can be challenging to foster in your classroom. In this session, we present a simple four-part model for argumentation that you can use with your students. You will engage in a coordinate geometry activity, using technology, or paper and pencil, and structured to support argumentation aligned with the model. You will experience and learn innovative methods for establishing the classroom norms critical for rich mathematical discourse. Examples of argumentation-rich tasks for all middle grade levels will be provided. We will address issues of equity: argumentation is for all students."
The Mathematics of Voting	"How can a presidential candidate win the electoral vote but not the popular vote? There have been a total of 58 presidential elections. In five cases (two this century), the winner of the popular vote has lost the election. This session will explore the mathematics of elections as the presenters lead the attendees through a 5E lesson plan that is correlated to 6th, 7th, and 8th grade TEKS. Participants will be provided with a complete lesson plan, student guide, and reference sheet so that they can implement this activity in their own classrooms."
Using Data for Interventions and Extensions	"During this interactive session, you will explore how to use unit tests to provide interventions and extensions for diverse learners. In the high stakes testing environment, time is of the essence. Learn how to transform students' learning experiences faster and more effectively!"
Making Paperless Meaningful in the Math Classroom	"In today's digital age, teachers often feel the push to run a technology-centered, paperless classroom. How do we make sure that the tech tools at our fingertips are used to enhance mathematical thinking and learning? Attend this session to explore lesson ideas perfectly paired with technology resources to make rich, meaningful opportunities for your students to engage with any math concept. Bring your own device!"
#GotVocab	Do your students struggle with vocabulary? This session will be beneficial for all, but especially those teachers of ESLs, SPED, and low performers. It is a vocabulary-learning strategy that builds connections between pictures, words, and definitions. You will leave this session with immediate resources to implement this concept in your classroom.
Step Right Up!	Take a chance and spin the big wheel. How likely are you to win a prize? Maybe your role has changed and you are the one creating the big wheel. How certain are you that your prizes will last through the night? Investigate and use probability models to find probabilities of events. It's likely you will enjoy the big top.
Help! My Students Are Bored! How Can I Engage Them?	"For teachers to engage students, they must begin from the students' point of view. What is it that drives students to learn? Experience an interactive teaching strategy designed to motivate and engage students while deepening conceptual understanding."
Who's In? Strategies for Inclusion Classrooms!	"Do you have students that you deal with? Don't deal, instead, build relationships! Instead, ask, "Who's in?" Teachers who build relationships with their students are involved socially, emotionally, and take time to connect with the students in class. Learn inclusion classroom strategies and social supports to help build relationships and maintain predictability and stability for your students. Communication and consistency are keys to building their trust, and it lets students know, "Who's in!"
#tech2teach: Transforming your Classroom with Technology	Today's students are more technologically-minded and able than we could ever be. Come explore some of the most effective tech tools that will promote engagement, reinforce conceptual understanding for our students, and maximize your valuable time. Learn about the latest educational apps and programs that will make your students go crazy for math.
Friends With Math	We need to change society's relationship with math. What happens when you break math out of its artificial shell and spend time with it like you would with a friend? You get even more learning! Let's crack open the world of math experiences and see what building a friendship with math can be like for all of us.

Use Hip-Hop Math Songs to Excite and Empower Learners	"Music can effectively lower anxiety, promote deep student discourse, empower students, and create an exciting learning environment. Come and learn how to use music in the classroom to tap into student emotions, lower affective filters, be culturally responsive, and teach students before math even begins."
Need Closure? Strategies for Moving On	Some teachers have difficulty closing a lesson. This session will focus on engaging strategies and techniques to help teachers wrap up learning and get ready to move on to the next lesson. Participants will leave with multiple resources and activities for immediate use in their classroom.

Opening Sessions, Wednesday 8:00 AM - 9:30 AM

What's Important in Math Today?	The primary purpose of the school system has always been to prepare students for society. But with society changing more rapidly than ever before, it seems our students are being prepared for yesteryear's economy. This session will reflect on recent decades to see how the mathematics curriculum prepared students for the society of the day. In doing so, it will provide a rationale for expanding the focus of classroom mathematics to include the thinking skills that students now need in order to engage effectively in today's (and tomorrow's) world. Additionally, participants will discover how to stimulate thinking and reasoning skills through language and discourse and by building a solid foundation of conceptual understanding.
Deliberate Optimism: Reclaiming the Joy in Education	Do you feel like you are doing more and enjoying it less? Are there certain colleagues who are "getting on your last nerve?" Dr. Debbie Silver discusses how educators can maintain a positive sense of self through proactive principles of working and living. Learn how to maintain your sanity while performing the important job you do. Debbie offers participants an entertaining and thought-provoking look at how teachers can regain their power and rejuvenate their positive attitudes.

Extended Sessions, Wednesday, 10:00 AM-12:00 PM

Fall Down 7 Times, Get Up 8: Teaching Kids to Succeed	Dr. Debbie Silver is one of the most sought-after keynoters and professional development presenters in the United States. Audiences everywhere respond to her use of humor, candor, and common sense. Her insights into human behavior are as undeniable as they are funny. In this presentation, she delves into motivational concepts including self-efficacy, attribution theory, zone of proximal development, deliberate practice, and growth mindset. Based on her best-selling book, Fall Down 7 Times, Get Up 8: Teaching Kids to Succeed, Debbie provides down-to-earth examples of concrete, applicable guidelines for helping students overcome setbacks and failure to foster lifelong success.
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Wednesday, 10:00 AM - 11:00 AM

#Got Evidence?	"What are some ways you can prove students own a concept? How, as a math specialist/teacher, can you gather evidence of student learning? What evidence do you need from individual teachers to show that classrooms are places where deep learning is taking place? During this hour, we will share how we have used evidence from students and teachers to measure and improve student success."
It's About Becoming a Mathematical Thinker, Not a Calculator!	"Come learn how the calculator can help your students become mathematical thinkers. We will explore instructional strategies integrating the calculator to provoke inquiry, discovery, and making connections in middle school and Algebra I classrooms."
Using Critical Thinking During STAAR Review To Increase Understanding—What??	Multiple choice is not just about choosing a correct answer. Students need opportunities to explain/justify why the other choices are not correct choices. We will share some ideas on how you could use critical thinking for multiple-choice questions to provide rich opportunities of learning rather than just getting evidence of learning.

Vertical Strands that Promote Success on the STAAR Math Tests	"Participants will be shown how to identify the ""hidden"" vertical strands within the mathematics TEKS for grades 5-9 that can help guide instruction for all grade levels. Strategies to find other vertical strands and increase collaboration and vertical planning will also be discussed."
Got Words? Need Meaning?	"Are your students struggling with math academic language? Are you struggling to find time to integrate math vocabulary into your instruction? Would you like your students to own their math vocabulary in the classroom? Come play in our sandbox to learn, play, and walk away with turnkey activities for how to incorporate academic vocabulary seamlessly into your instruction."
Middle-School Mathematics Through Children's Literature	"Imagine if you could meet the legends of mathematics when they were kids themselves! Children's literature and engaging math activities will introduce you to Fibonacci, Euler, and Leonardo di Vinci. Learn how to engage students in mathematical understanding through famous mathematicians: Archimedes, Descartes, Eratosthenes, Euler, Fibonacci, and Pythagoras. Math content showcased are the concepts of Area/Perimeter, Diameter/Radius/Circumference, Pi, Area of Circle, Volume of Cylinder, Angles, Tessellations, Symmetry, Polyhedron, and Pythagorean Theorem. The goal of this presentation is to show how integrating literature and mathematics allows students to observe the connection between mathematics and our everyday world. Attendees will gain names of books and lesson plans with activities to teach the strands of geometry and measurement."
Student Self-Assessment: Four Strategies to Help Your Students Move Beyond "I Don't Get It."	Is your students' self-assessment limited to "I don't get it!"? What strategies can we use to help students better understand their learning and make adjustments to their personal learning process? Come explore four strategies to use with your students to get them started on self-assessment.
Get Hands-On Middle School Algebra Strategies	"Do you have fun, hands-on algebra activities? Want some? Come see and do some fun algebra, because "learning algebra" is not the same thing as "working your way through an algebra textbook's set of problems!" Come play with us in a collaborative environment where teachers can learn about and share some best practices and resources while trying to add some essential skills needed for success in Algebra 1 to your teacher toolbox. Activities shared will be specific to Algebra 1 TEKS, but all templates will be in shared editable formats."
Problem Solving vs Solving Problems	"Solving problems happens routinely in math class, but getting students to problem solve is much harder. Problem solving implies a deeper level of thinking and an increased level of complexity that goes beyond traditional problems used for class and homework activities. This session will focus on ways to get students to probe deeper, think differently, and analyze mathematical concepts that can be easily incorporated into routine instruction and make learning anything but routine. Math Cut Ups will be featured in this session."
Retain Your Gains! Math Practice Software for Grades 5 to Algebra 1	"Every math teacher can tell you the problem—kids forget! At the year's end, the TEKS cover everything in the course, but the kids only remember the last two weeks. Commence frantic cramming! Get More Math can help. Our practice software delivers daily cumulative review, so you can be sure your students retain key skills all year. At our session, we will show you how our system works. We will also offer you free training that comes with a one-year unlimited-use account. Once you get started, you will choose the TEKS skills that form your core objectives. GMM will include those skills in daily practice sessions built per student based on areas of greatest need."

Dana Center/Agile Mind Course Program Users Meet Up	"Have you been teaching with the Dana Center/Agile Mind middle school or high school mathematics course programs for a year or two? Are you planning for your first year of implementation? Are you currently teaching with other resources, but want to learn more about what Agile Mind has to offer? Network and learn with educators who are using the Dana Center/Agile Mind middle school and high school mathematics programs. This highly interactive gathering will start with an overview of what's new in the course programs, and then focus on how you and your students can get the most out of Agile Mind. Bring your ideas and questions for the designers and developers of the courses! Participants will be encouraged to share their own success stories, strategies, and challenges. Leave with inspiration, fresh ideas, and new collaborators!"
Engage and Motivate All Students with Differentiated Instruction	What exactly is differentiation? How can one lesson meet the needs of all learners? Are you tired of one-size-fits-all instructional methods? Discover how to approach differentiation to meet the needs of all mathematics learners.
Progress Monitoring Tools for K-5 Mathematics	"Within a system of intervention, we know we must monitor the progress of our students toward their goals. But, what tools do we use? Where do we start? On what topics do we focus? How do we determine growth? In this session, I will share examples of the K-5 progress monitoring tools I developed to answer these questions, and more! I will also provide digital access to these tools. Did I mention they are aligned to the TEKS and I will share them all with you (for free!)"
TI-Nspire Navigator™ System Activities for Intermediate or Advanced Users (TI)	This hands-on session will demonstrate some advanced features of the TI-Nspire CX Navigator using the TI-Nspire handheld technology to support instruction of the TEKS and STAAR preparation. An overview of TI-Nspire Navigator resources available at the www.timathnspired.com website will also be provided. If you have the TI-Nspire CX Navigator system, and have been using it for instruction, this session is for you.
Student Songwriting 101	"Since writing leads to deeper understanding, let's use the novel experience of songwriting to increase students' depth of knowledge. In writing songs, learners begin to own math content and develop pride in the work they do. Students become content experts as they write math songs that can be used in many ways!"
How to Effectively Plan for the Math Classroom	"How do you use the resources provided to effectively plan for an engaging math classroom that hits the TEKS and helps students to achieve mathematical understanding? Wendy will talk about the ""prep versus planning"" approach that her campus uses to help students become successful in the math classroom. She will share what resources they use and how data is used to plan lessons and make good instructional decisions for students. You will get a glimpse into what a planning room looks like where teachers come together in a true PLC to make planning decisions for students success."

Wednesday, 11:30 AM- 12:30 PM

#GotCubes? They're Perfect for Problem Solving	"Start with a cube or a pile of cubes. Stack them, count them, paint them, and you'll do some real math. A dozen 5-minute cube problems provide a fresh approach to problem solving. Take these and 50 additional problems back with you."
Developing Statistical Literacy in Middle-School Students	""Torture numbers, and they'll confess to anything."" Gregg Easterbrook Being statistically literate involves critical thinking and awareness, but more importantly, the ability to determine the truth behind the data. From middle to high school, students are required to demonstrate statistical reasoning. This session will provide the tools necessary to teach foundational statistics in an engaging and meaningful way."
Making Connections	Participants will use manipulatives to bridge the gap from numerical to algebraic thinking.

Math Tasks and Manipulatives— A Winning Combination	Rich mathematical tasks that engage students in solving and discussing are a vital part of a mathematics classroom. Manipulatives can be utilized as a tool to help students with such tasks by providing entry points for each and every student. Come explore some rich tasks utilizing a variety of manipulatives.
TEKS-Based Strategies and Models for Math	Models are essential for students to understand the mathematics behind mathematical processes. We will explore the different types of models and how each model is necessary for students to deepen their understanding of mathematics.
Math Games	"Who doesn't love games? In this session, you will play math games and learn how to use cooperative groups to meet the needs of your learners. Do you have a student who loves ""solitaire only"" games. You will learn ways to engage those ""lone rangers"" by giving each student fun job assignments. Learn why Sean Paris calls this ""Engaging the Wingman."" Come join the fun and learn how to 'level up' for success!"
Escaping Math	"Have you seen escape rooms or the popular classroom escape boxes? Have you wanted to do one in your own class, but it's too expensive to buy all the supplies? Or, you're just not sure where to start when setting one up? Join me in discovering how to design an activity and the many different ways you can use things already in your classroom to create an escape room or a classroom scavenger hunt!"
Problem Solved	Students at every grade level should be able to "Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution." in accordance with the mathematical process standards. But, how does one get that started? How do I live up that conversation? What strategy works best to peak my students' interests? This session will explore the Say W.H.A.T. strategy and how to use it for problem-solving success!
From Stale to Stimulating— Making Cultural Connections Through Formative Assessment	"Formative assessments are a powerful tool for guiding instruction, supporting new levels of mathematical understanding, and connecting with students beyond the content. In this session, learn research-based strategies for uniting culturally-relevant pedagogy with evidence of students' progress in every strand of middle-school mathematics to transform your classroom."
Adding and Subtracting Integers—No Rules Required	"Come and learn how "shaping" the minds of our students also shapes the world! This all-encompassing session will provide you lessons, ideas, activities, and resources for implementing a unit on determining the area of composite figures. The culminating project will help students make connections and apply learned skills. Your students will start looking at the world from a whole new perspective!"
Assessment Strategies Can Make an Impact	"Summative assessments are inevitable in the math classroom. What if there was a way to build student confidence and have each student engaged in academic discussion before and after an assessment? In this high-energy session, we will model and share strategies that allow assessments to become tools for engagement, rigor, and student learning."
Integrating Physical Activity into the Mathematics Classroom	"The connection between physical activity, health, and academic performance is well-documented, and schools have been identified as an ideal access point to increase movement. Specifically, moderate-intensity activity prior to math lessons increases student engagement and math performance. In this interactive session, participants will learn about the association between movement integration and math achievement, engage in discussion and activity regarding barriers to implementing classroom physical activity that addresses common barriers and methods of diminishing or overcoming barriers, and become familiar with various math-specific sample activities to implement in their own classrooms."

Processing the Process Standards K-5	"In this session, participants will take an in-depth look at the mathematical process standards. They will engage in activities that cover each strand and collaborate with each other on how to incorporate these activities in the classroom. Participants will receive a variety of instructional activities (digital and hard copy) and implementation documents for easy collaboration with teachers on their campuses. This session is open for grades Kindergarten through fifth grades."
The Students Won't Stop Talking—And That's A Good Thing!	As social creatures, students make sense of their world through communication and interaction. Why is it, then, that so many math teachers want to keep their students quiet? Learn the importance of student talk and how it can be used easily and effectively to build relationships. Walk away with three strategies you can use to build a positive classroom environment that won't drive you nuts!
#PD2C: Connect and Capitalize on Social Media as a Professional Learning Tool	"Given the undeniable prevalence of social media, it makes sense to utilize the power of virtual platforms to extend professional learning in mathematics beyond the traditionally passive sit-and-get style. By intermingling professional learning into social and personal communications, educators can develop and share ideas in real-time, making important connections among instructional content and authentic contexts in short and manageable bursts. When used effectively, Mobile Learning and Social Media allows for longer and deeper thinking and discussion about critical mathematical content. The Charles A. Dana Center at The University of Texas at Austin will share how we are capitalizing on these unique learning formats and the research that supports these practices. Through the use of memes and short videos, participants will engage in rigorous tasks and thought-provoking questions that entice discussion and encourage professionals to make immediate changes in their practice."
Effective and Successful Grant Writing Strategies (TI)	This session will provide practical advice to help prepare grant proposals for federal, state, local, foundation, and corporate funds to purchase equipment and materials for classroom instruction. A variety of resources prepared by Texas Instruments and other open sources materials will be provided to participants. This session is not just specific to calculator technology—learn basic grant-writing skills to prepare a grant for any materials and resources you might need in your classroom.
Real Math for All Students	How do different perspectives on learning math affect both the teacher and learner? How can we leverage those differences to help all students construct real mathematics? What is real math versus fake math? I'll share insights and suggestions for helping more students learn more math.
Graphing Calculators—Tips, Tricks, and Good Stuff You Need to Know	This hands-on session will focus on various features of the TI-84 Plus family of graphing calculators. Topics will include the equation solver, storing pictures, using Boolean Logic to test answers, memory reset for testing, archiving, games, table setup, zoom memory, grouping, split screens, and much, much more. Don't miss this one.

Extended Sessions, Wednesday 12:30 PM - 2:30 PM

When Math is Not Their Favorite Subject Be Their Favorite Teacher: Part II Collaboration & Discourse	As math teachers, many times we have students in our classes that do not 'like' math. That makes our job tougher than it already is. One option you DO have with these students is to be their favorite teacher. This session will include ideas for setting up student groups, managing student groups, and implementing stations in your classroom.
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Wednesday, 1:00 PM - 2:00 PM

Algebra Makes Sense When It's Concrete	"Algebra can make sense to everyone! Come learn how to make algebra concrete for your middle-school students in this hands-on, interactive session. We will use multiple representations that can help all students understand the concepts! All lessons will be aligned to 6-Algebra 1 TEKS."
Algebraic Strategies + Geometric Activities = #GotMath!	Participants in this session will experience a "Parallel Modeling Strategy" that supports students in transferring a process and a "Technical Reading Technique" that supports students in reading and understanding applications of mathematics.

Math Games and Activities Aren't Just Fillers	"Are you looking for ways to incorporate games and physical activity in ways that will engage your students and help them learn content? Do you want to help students practice persistence and productive struggle? In this fun and active session, you'll experience a variety of activities that you can take back and use in your own classroom."
Got Words? Need Meaning?	"Are your students struggling with math academic language? Are you struggling to find time to cover math vocabulary? Come play in our sandbox to learn, play, and walk away with turnkey activities for incorporating academic vocabulary into your instruction."
"Manipulating" Triangles	"Participants will learn how to use manipulatives to discover the sum of the angles in a triangle, the relationship between the lengths of sides and the measures of angles in a triangle, and determine when three lengths form a triangle."
Helping Students Succeed in Algebra Through the Use of Manipulatives	"Do your students struggle with algebraic concepts? See how your students benefit from a visual approach to algebra and learn how hands-on activities can help promote their understanding of algebraic concepts. Topics include integer operations, solving equations, polynomial expressions, graphing, and more!"
Classroom Economy	"A classroom economy has the sole purpose of bringing the real-world financial responsibilities of an adult into a safe, classroom environment. From applying for jobs to maintaining a checkbook, this classroom economy is adaptable to fit any middle-school classroom. The jobs are real-world applicable, as well as the skills built throughout the year. All it takes is a couple of class periods to set up the system, and then stay consistent with it. Students receive paychecks weekly and pay rent monthly. You can teach the Personal Financial Literacy TEKS while applying it directly to every day life."
What Happens When the Real World Meets Proportional Reasoning and Technology?	"Find out in our exciting session where Google Street-View, 3-D Warehouse, and proportional reasoning are focused around a famous landmark in Waco, TX featured on the HGTV hit show, ""Fixer Upper."" Participants will engage in a multi-layered task involving open-ended thinking, numeracy, and problem strings."
Alternative to Interactive Notebooks—Can You Believe It?	Are you like me? You start out great making the class notebook, but then you fall off the wagon? I will show you how you can do smaller notebooks with envelopes. Breaking the concepts into smaller pieces actually helps students. Many strategies will be shown to help students to breakdown a concept for understanding. Come find out and leave with a model envelope for your next unit!!!
Growth Mindset in the Math Classroom	We will discuss and explore what the growth mindset looks like in the math classroom. How do we give students entry points to be successful and help each individual believe that they can be successful?
Building Bridges in Mathematics Education: Research on Math Intervention and Assessment	This session will report work currently underway in an Institute for Education Sciences-funded middle school project involving special education and mathematics education researchers. In addition to validating algebra readiness intervention lessons for sixth and seventh graders, the project is examining issues of mathematics assessment and striving to expand the targets of assessment beyond the usual factual/procedural/algorithmic responses that are typically assessed in special education research to include assessment of student thinking as reasoning about mathematical concepts. This new direction in assessment will be critical if students with mathematics difficulties or disabilities are to be successful with the TEKS and Common Core State Standards.
Changing Minds: Coaching for a Mathematical Mindset	Teachers' identities as math learners and fundamental beliefs about the nature of mathematics play a critical role in shaping both the learning opportunities given to students and students' math mindsets. This session will examine the impact of mindset on teacher learning and instructional improvement. It will consider ways that coaching can help teachers reflect on their unconscious beliefs and take steps towards adopting a growth mindset.

Making Sense of the TQE Process	"In this engaging session, participants will experience how selecting the correct tasks and engaging with them as learners is crucial preparation for effective instruction. This engagement includes developing effective questions that provide evidence of student learning through tasks, questions, and evidence (the TQE process). Edward C. Nolan uses video of authentic classrooms to create a shared image of rigorous mathematics instruction and to support the importance of making sense of mathematics for teaching."
Math Coach's Cafe	"As a coach, your head is often swimming with ideas of "what could be." This interactive session is intended for math coaches, specialists, or other educators who support math teachers by encouraging the use of best practices. Session participants will gain practical ideas, collaborate, address challenges, and celebrate successes."
Personalize Your Students' Learning Experience Using IXL	IXL Learning is a web-based program used to reinforce curriculum. It does not take the place of direct instruction. IXL enables teachers to individualize instruction, allows students to work at his/her own pace, so learning is moved forward because of detailed, real-time data that is provided upon completion of technology time. The IXL program offers skills that range from Pre-K through 12th grade. Subjects offered are Language Arts, Math, Science and Social Studies. Participants will engage in activities and be provided a lecture that will clearly paint a picture to give participants a visualization of what students experience as they rotate through whole-group instruction, small-group instruction, technology, and independent workstations.
Infusing our Math Classrooms with Loving Kindness— Opportunities and Challenges	Wouldn't it be nice if our math classrooms had an atmosphere of loving kindness? Loving kindness is the warmth and openness in one's heart for the well-being and happiness of others. Participants will learn about different kinds of kindness, two types of happiness, the link between kindness and happiness, and how to cultivate kindness within and then infuse one's classroom with kindness. In this interactive session, participants will inspire each other through stories of kindness they experienced in their classrooms and share ideas such as nurturing without pampering or building students' confidence in math without reinforcing their ego, discuss how kindness can guide us through adverse situations, identify obstacles to practicing kindness in our math classrooms, and come up with strategies to overcome those obstacles.
Promoting Student Ownership of Learning Using Checklist	"See how students can use student-friendly objectives, or "I can" statements, to monitor their own learning progress to create shared ownership for mastery of standards. In this session, participants will learn how to create and use a one-page document to help students, including ELL and Inclusion, track mastery of standards. Participants can use the chart as an informal assessment tool to inform classroom instruction."
How Do We Know What They Know? Visible Mathematics Learning	We must know what students know to guide them forward. John Hattie's Visible Learning database helps us make good decisions about what strategies to use for what purpose for effective mathematics teaching. Learn about this research and its implications for mathematics teachers and students. Participants will engage in mathematics tasks and discourse strategies grounded in the meta-analyses built from the Visible Learning database. The session will model a sequence of learning experiences designed to make learning visible to teachers and students at all levels. The Visible Learning research tells us what is most effective for students from a wide range of populations. This session translates this research into practical strategies for mathematics teachers so they can use this foundation to create classrooms with equitable opportunities where every learner is empowered to access rich mathematics.