

CAMT 2018 Sessions (Grades PK-2)

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

Empowering Equity in Problem Solving	Research indicates that minority students can compete with and outperform their peers if given the opportunity to discuss math problems, talking about how they choose solution methods and why they work. This highly interactive session teaches a process that is entirely student-centered and uses discourse as the pathway from understanding the problem's situation and comparing solution pathways to finding a solution and making sense of the process.
The Power of Ideas	Historically, the teaching of mathematics is particularly guilty of giving students the message that their ideas aren't important and that they only need to memorize and regurgitate the ideas of others. If students are to become critical thinkers, they need to realize that the ideas they bring to the classroom are worthwhile. They should also have opportunities to express and refine those ideas, as well as to learn to listen critically to the ideas of others. We'll talk about some examples of ways in which we as mathematics teachers ignore students' ideas, then explore different routines and strategies for making students' ideas play a more central role in the classroom.
The Power of Progressions: Untangling the Knotty Areas of Teaching and Learning Fractions	Let's explore some key understandings involving fractions by examining the developmental progression of models, strategies, and concepts, and how they all build on one another. Many times, as our fraction units near, the emphasis on teaching and learning mathematics shifts to rules and procedures which shouldn't be the case. To avoid this approach, we'll identify how simple changes in everyday practice can leave a math residue that builds solid reasoning and makes student understanding stick.
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.

Monday, 10:00 AM-11:00 AM

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®!"
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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 with 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!"
Building Conceptual Understanding Using a Beaded Number Line and a Rekenrek - RUSMP	Beaded Number lines and Rekenreks are powerful visual tools for representing and building number concepts. Come to this hands-on session to explore a variety of strategies for scaffolding students as they build their understanding of numbers.
Making "Cents" of Coin Collections	"Students who confidently use the hundred chart and its patterns to solve problems can utilize this tool to work with coins. The hundreds chart can be used to count a collection of coins or to make change for a dollar. In this session, we will use the relationships to count by twos, fives, and tens to determine the value of a collection of coins up to a dollar using a hundreds chart. Participants will be provided a modified hundreds chart to use with our activities during this session. Beyond practice of using the hundreds chart to determine the value of a collection of coins, we will share games, such as ""Clean Up the Money!,"" that supports this skill."

Oh The Math They'll Know!	"Come prepared to play games that incorporate the use of cards and dice that teach the following Pre K - Kindergarten concepts. Participants will play games and be taught strategies for teaching counting, comparing numbers, odd/even, $>$, $<$, early addition and subtraction strategies including doubles, make tens, fact families/patterns, numbers to 10, 20 and beyond. Participants will learn how to create math stations, start math journals, use student work for assessment purposes and extend the games and activities to the home. This is a great workshop for first and second grade teachers if you need ideas for differentiating instruction for your ELL and special ed students."
Representing Mathematical Ideas	"Do you want to learn how to represent mathematical ideas? Then, join this session as we explore the use of bar models and number lines that connect to many mathematical concepts."
The Coach's Playbook: Key Roles for K-2 Mathematics	What does it take to be an effective coach in primary mathematics? How do you support individual teachers and teams of teachers in a way that honors all stakeholders and promotes student success in Grades PK-2 mathematics? Join us as we share our lessons learned from the field and explore key roles and characteristics of an effective mathematics coach!
Number Lines in Motion	"Join us as we explore number lines in three interactive and entertaining activities. In the first activity, we will explore the basic concepts of a number line (What is it? How does it work?). Then, we will move to open number lines. We will practice filling in an open number line and explore the concept of jumping on a number line. Finally, we will end with adding and subtracting on a number line. Participants will receive digital access to resources and materials. If you're looking for a way to engage students in the challenging concept of number lines, this is the session for you!"

Monday, 11:30 AM - 12:30 PM

#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."
From 10 to Teens and Beyond: Bridging to Larger Numbers	"The transition to teens can be hard! Come explore activities that help students understand writing, saying, and even understanding numbers beyond 10. Classroom-ready activities will be explored in this session."
Getting Started: Incorporating Workstations into Kindergarten Mathematics	"Are you ready to incorporate student-based, engaging workstations into mathematics instruction? Are you unsure of how or where to begin? Join us as we explore the steps needed to incorporate math workstations into instruction and explore some “must have” workstation ideas, including technology integration! Take the plunge into making mathematics workstations accessible and meaningful for your kindergarten students!"
Incorporating Read Alouds and Songs Into Your Math Block	"Participants will understand the relevancy of incorporating Read Alouds and Songs into their Math Block. You will learn where the Read Alouds and Songs fit in your Lesson Plan Model. We will listen to a couple of a Read Alouds, sing a couple of Songs, and engage in activities that are aligned to the Read Alouds and Songs."
Early Geometry Concepts: Making Connections to the Real World	"Young children are active investigators of their world. Learning about space and shape helps them make sense of the world around them and lays the foundation for understanding geometry. Children develop this knowledge through experiences in four aspects: movement in space, location and direction, three-dimensional objects, and two-dimensional shapes. Additionally, it is the language children learn through their early geometry years that will set the stage for future success in the mathematics classroom. In this playful session, we will take a journey through the developmental pathway necessary to build these essential concepts and how you can make them come to life in your classroom."
Flexible Facts	"Right Hand Red, Left Hand Blue! Twister isn't the only time students have to be flexible. The foundations of fact fluency is conceptual. It's more about flexibility with numbers—having efficient and accurate methods for computing. Come explore hands-on activities with rekenreks and double-ten frames that value students' ability to use strategic thinking rather than speed. Leave with station ideas to begin using with your students as soon as you head back to school!"

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

Calling All New Math Teachers!	Are you new to teaching elementary math or still feeling as though you are learning the ropes? Are you a math coach who is working with new teachers and wants to gather some strategies to take back to them? Join Sue O'Connell to gather practical strategies and effective math routines for getting your primary students thinking like mathematicians. Whether you love math or are a bit fearful of your new role as a math teacher, you will gather a wealth of ideas that will have your students excited, engaged, and eager to learn math with you!
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Monday, 1:00 PM - 2:00 PM

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."
Builders at Work: Tasks & Tools for Developing Number Sense in the Early Years	"To compute quickly, flexibly, and accurately in later grades, young children need lots of practice putting together and pulling apart numbers. This session highlights part-part-whole ideas, number bonds, and partitions to show how working flexibly with number lays the groundwork for computational fluency. We'll get hands-on with number composition and decomposition activities that encourage exploration and concept building before introducing purely symbolic representations. Join us to explore a range of open materials to help teachers explore over a dozen concept-building tasks."
Fun and Games with Place Value and Operations	"In this completely interactive session for Grades PK-2, you will learn how to build students' conceptual understanding of place value and whole number operations while playing games and having fun. Leave with deeper understanding and activities to do in your classroom tomorrow."
Incorporating Mathematical Discourse in the Math Classroom	"During this session, we will discuss how to use a variety of strategies to engage early language developers in mathematical discourse. Participants will walk away with ready-to-use activities to support mathematical discussions in the classroom."
Reading is LIT in the Math Classroom!	"Children's literature is a powerful tool in the primary classroom. Young students are genuinely engaged in the imaginary world created by books. In this session, participants will experience exciting ways to make books come alive while using math to solve characters' problems. We will explore measurement as students' help the farmer decide which is bigger, the Big Carrot or the Enormous Potato. We will practice a problem-solving model when characters from "The Day the Crayons Quit", by Drew Daywalt come to life and present the class with notes and problems to solve while taking our supplies hostage. We will help our new friend, Molly Lou Melon, count her stacking coins, and much more."

Rolling Into Math - Fact Fluency Games with Regular and Double Dice	"Who knew regular dice could be used to teach so many areas of the curriculum? And that double dice could double the math and the fun! The games taught in this workshop are both our favorites and the students'. You will learn games for developing operational fluency in basic addition/subtraction including doubles, double plus 1, associative and commutative properties, make 10, make 20, fact families, +9, -9 and more. Learn ways to engage and motivate your primary students with some of Jane's all -time favorite games that allow for meaningful and differentiated fact fluency practice. Gameboards provided"
Primary Number Sense Make and Take	"In this session, participants will be able to create number-sense toolkits for their classrooms. Participants will learn how to incorporate number-sense routines into their daily class times, learn about the importance of conceptual understanding in primary grades, and discover how to involve parents in number-sense activities."
DISCoing Into Place Value and Operations	We will use place value disc to demonstrate addition and subtraction with and without regrouping. It is simple and engaging.

Monday, 2:30 PM - 3:30 PM

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.""
Early Learning: How Dramatic Play will Revolutionize Your Mathematics Classroom	"When children are born, they are immediately thrust into a world of stimuli. As they grow older, they begin to explore, investigate, and make sense of their everyday world. How do children do this? Through their innate sense of play! In this session, you will discover how the actions of dramatic play will enhance the mathematics instruction and language used in your classroom. Together we will investigate, discuss, and engage in various language-rich activities involving several strands of mathematics that you can take back to your classroom tomorrow!"
Got Problems? Let Reading Strategies Rule!	This session will incorporate reading strategies to enhance instruction of problem solving. Participants will engage in activities and progressions to take and use with their young mathematicians.
Visualize! Subitize! Automate! Actively Create Meaningful Math Moments with Math on the Floor!	"Let's help young mathematicians make meaning with math! Participants will build professional understanding as they engage in critical structuring number and sequencing skill activities that build conceptual knowledge of foundational mathematics. Specific ideas to directly address common misconceptions that occur with young learners will be the focus of the work. Teachers will see that by engaging children in the exploration of math concepts using games and a large 100-square floor grid, each student can build a depth of knowledge in mathematics. Assessment and differentiation suggestions will also be shared."
#gotgames? Engaging Children in Mathematical Thinking Through Games!	"This session presents free sources of high-quality lesson plans, games, and activities for the PK-2 math classroom. We will provide an overview of each resource and then play an example game. In addition, presenters will engage the audience in an interactive discussion of various modifications and classroom considerations. Come play with us and learn new ways to engage students in mathematical thinking!"

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

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.
Moving Beyond Memorization: Mastering Basic Math Facts in Addition and Subtraction	Mastery of basic math facts is much more than simply memorizing the facts. Through explorations in which students explore operations, observe number patterns, and discover properties, our students make sense of the facts and emerge with fluency and number sense. Discover investigations, discussions, visual models, children's literature, and fluency games that develop an understanding of basic addition and subtraction facts while allowing students to explore number strategies and become fluent with these basic facts.

Monday, 4:00 PM - 5:00 PM

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."
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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."
Developing Early Numeracy Through Workstations	"Number Sense in the early grades are building blocks for math success. Join us and engage in activities that focus on the development of whole number concepts. We will cover standards and activities that span PK-2, that are designed to help you engage your scholars in numeracy workstations."
How to Plan for Differentiated Workstations in K-2 Mathematics	"What do differentiated workstations in primary mathematics look like? How do you prepare and implement differentiated workstations? Join us as we explore how to prepare, make, and implement differentiated work stations ... and sample a few as well!"
Promote Numerical Nimbleness with Visual Models and Games	"How do we work smarter to create numerically nimble students? Exposure to visual models and engaging games will help students develop number sense. These activities and materials differentiate instruction and lead to student success composing and decomposing numbers, plus a deeper foundation for fluency with basic facts. You will leave with classroom-ready games and strategies to enhance numeric sense-making and mathematical reasoning."
The 100 Chart—It's Not Just a Wall Ornament!	"Come and see how to use the 100 chart to build number sense in K-2. We will look for patterns and use the chart to solve real-world addition and subtraction problems. You will be amazed, and your students will be empowered to solve any problem you put in front of them. Handouts will be shared, and fun will be had!"

Math Noodling...Journal Response Strategies Using Math Games	"Participants will need to bring a pair of scissors and felt pens to this new workshop. Jane will be presenting some of her favorite card and dice games, but along the way participants will learn how to make math journals, strategy books, build visual math dictionaries and more. Jane has been sharing student work samples forever and is excited to share what she has learned along the way. Teaching young students to document their learning as they play is a powerful piece for developing deeper understanding of the math concepts being taught during game play. Journals are great for collecting work samples for assessment, for home connections and math buddy programs. If you are a third through fifth grade teacher you would also benefit from this workshop. Come prepared to play, noodle and create some great samples to bring back to your classrooms."
#K-2GotMathGaps?	We will discuss ways teachers can collect and analyze student understandings in math by providing participants the opportunity to explore various forms of student data to name and notice students' level of understanding. We will use what was noticed to then share ideas for what to do next to support students' growth.

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.
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.

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

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!
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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.
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Tuesday, 10:00 AM - 11:00 AM

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."
Numeracy Counts	"Numeracy is the foundation of the mathematics classroom. In this session, participants will learn concrete ways to introduce and scaffold concepts of numeracy including counting, comparing numbers, and place value. We will explore beaded number lines, rekenreks, five frames, ten frames, number paths and more."
Powering Primary Number Sense with a Counting Rope!	"Learn how to construct a powerful number-sense tool called a counting rope! Kathy Collins, a Kim Sutton Associate, will model how to use this tool PK-2nd grade for subitizing and composing and decomposing numbers. She will share how to use this tool for teaching the commutative property. You will leave with a suitcase full of amazing strategies and will be ready to inspire your students through songs, dances, and meaningful math!"
Math Shakers-There's a Whole Lot of Shaking Going On	"Come play with Jane's favorite million dollar math manipulative - a pill container filled with dice. This manipulative has proven to be the most popular with students and teachers alike. The math shake break activities incorporate all learning channels, allow students to move and learn in your daily math programs, centers, or at home. The activities are easy to differentiate and use either whole class or in centers/small groups. Use them to help teach and practice the following concepts: subitizing, patterns, comparing numbers, place value to 100, fact fluency including doubles, make tens, commutative and associative properties of+ and-, early multiplication and skip counting, and more. Journal masters and student samples, ideas for assessment will be shared. Shake break music list and lots of active movement are in store! Come prepared to play, dance and learn!"
A Framework for Supporting All Students: Addition and Subtraction, Grade 2	Experience classroom-ready activities that integrate research-based instructional strategies designed to narrow academic gaps related to the concept of addition and subtraction. Purposeful small-group intervention suggestions are incorporated to facilitate learning for a broad range of students including English Language Learners and struggling students.
Piecing It Together: Word Problems + Differentiation	How do you challenge all learners through word problems at their own level? This K-2 session will show you how you can differentiate your word problems by providing multiple entry points and offer support for struggling readers and ELLs. Learn how you can transform your close-ended problems into meaningful problem-solving tasks! Explore how to integrate technology and incorporate manipulatives so that every student can successfully solve word problems. Leave your close-ended problems at the door!

Tuesday, 11:30 AM - 12:30 PM

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.
#gotmathRtI? (Kinder/1st)	"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 and/or Pre-K Guidelines? Come hear how one district stood on the shoulders of giants to put together workable screening, monitoring, and aligned instructional resources to move students in mathematics."
Data Binders: Tools to Guide Mathematics Instruction	What's all of this talk about data binders? What goes into a data binder and how do you implement the use of data binders in the primary mathematics classroom? Join us as we share our experiences using data binders to help facilitate individualized mathematics instruction for our students.
Linear Computation for Grades PK-2	"In this interactive session, we will use open number lines, two-color counters, and Cuisenaire Rods to develop a conceptual understanding of linear computation. Come explore some new strategies to join, separate, and compare, while building numerical fluency for our young learners."

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.
Energize Your Primary Mathematics Classroom via Dinah Zike's Foldables	Cut, fold and more in this hands-on, fast paced session as you create powerful learning tools for primary mathematics learners. Depart with ideas ready to use on Monday that are brain-based, kinesthetic, and integrative.

Tuesday, 1:00 PM - 2:00 PM

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.
CONNECTING THE DOTS: - Primary Domino Games	"Come prepared to play games that incorporate the use of easily found dominoes to teach the following concepts: numeration, patterns, graphing, place value, operations/fact fluency, including 2 digit work, problem solving and chance. This manipulative is easy to use and integrate into your math program, and appeals to all students - it is just one of those manipulatives that ""feels great to work with"". This workshop will show you the powerful math connections and problem solving opportunities that can be made with domino activities Gameboards, journal writing extensions, math talk and time-saving management tips to use right away will be shared. The activities in this workshop are also great for planning a family math night."

Deconstructing Numbers to Construct Number Sense: Hands-on Experiences for All Learners	"Participants will experience both the learning and teaching of kinesthetic and concrete activities to build number sense. Large models of number lines, ten and double-ten frames, and number grids will be used to kinesthetically explore counting, skip counting, and number patterns. These experiences help build a sense of quantity, awareness of patterns, and the ability to compare quantities. Participants will also explore concrete activities such as deconstructing a number grid to build a number line and collaborating to silently build a number grid. This combined kinesthetic and concrete approach enables students to more deeply understand multiple representations of numbers."
From 10 to Teens and Beyond: Bridging to Larger Numbers	"The transition to teens can be hard! Come explore activities that help students understand writing, saying, and even understanding numbers beyond 10. Classroom-ready activities will be explored in this session."
Getting Warmer!	"Are you ready to jump-start your math instruction or get out of a warm-up rut? Join us to explore warm-ups that are easy, fun, rigorous, and differentiated. Warm-ups set the tone for your math block and this session will provide a variety of ideas that you could implement right away!"
Developing Computational and Procedural Fluency for Every Child: More Than Memorization and Drill	"The speaker will actively engage attendees with differentiation strategies to develop mathematical thinking and fluency, including mental math, games, puzzles, and math 'talks,' to increase student engagement and move away from paper and pencil 'drill' without understanding. The speaker will model effective questioning strategies, the use of manipulatives, and real-life problems, to demonstrate effective and flexible applications of concepts and procedures with deep understanding. Handouts provided."
To Compose or Decompose	"There is so much composing and decomposing going on, but do students really understand how to manipulate the numbers and know what they mean? Join us as we use tools to demonstrate a deeper understanding of composing and decomposing."

Tuesday, 2:30 PM - 3:30 PM

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."
Good Mathematicians Use Math Talk!	"Have you ever wondered what it would be like to have your students engaged in a mathematical conversation? Well, come and discover ways to get your students actively involved in meaningful mathematical discourse!"
STAAR Problem Solving Using Manipulatives and Children's Books	Learn research-based strategies to help all students develop problem-solving skills as they build mathematical and conceptual understanding. Participants will experience hands-on manipulative activities and games within the concrete-representation-abstract (CRA) method. Children's literature activities are included to help students apply mathematics to problems arising in every day life.

Number Lines in Motion	"Join us as we explore number lines in three interactive and entertaining activities. In the first activity, we will explore the basic concepts of a number line (What is it? How does it work?). Then, we will move to open number lines. We will practice filling in an open number line and explore the concept of jumping on a number line. Finally, we will end with adding and subtracting on a number line. Participants will receive digital access to resources and materials. If you're looking for a way to engage students in the challenging concept of number lines, this is the session for you!"
Hands-On Exploration: PK-2 Student-Centered Activities	"This session will focus on approaching problems by engaging students in hands-on activities and building/drawing representations of reasoning and thinking, rather than introducing a pre-set way to solve problems. Resources for finding tasks will be shared with attendees of this session."
Adding and Subtracting on an Open-Number Line	"How do we progress from base-ten blocks and hundred charts to capturing student-invented strategies? We will use our understanding of a unit, decomposing/composing, and place-value patterns to model strategies on an open-number line."

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

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

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.
GPS Directions for Addition and Subtraction Fact Fluency!	Experience meaningful directions for achieving addition and subtraction fact fluency. We will start with a map of computational strategies! Then we will visit several destinations for effective practice of these strategies. The handout is amazing and includes ready to use activities. Bring your dancing shoes because we will shake a leg or two in pursuit of fluency. You will see powerful connections to other math content. Let's take this trip together! It will be amazing!
Focus on Engaging, Hands-On Lessons	"This hands-on session will cover number sense, operations, and more using manipulatives, games, and children's literature. See how you can engage your students and meet the rigorous standards of the TEKS."
Enhance your Number Sense with Clothesline Math for Primary	Participants will engage with clothesline math activities that span across all strands of math. Equalities will be shown through a double number line.
Primary Place Value Games - Foldable Rulers, Number Lines and More!	"Number lines and place value dice are easy to find, versatile and great for teaching many concepts at the primary level. Come prepared to play games and learn strategies for teaching the following concepts: using benchmark 10's and 100's on a number line, learning numbers to 100, 1,000, early rounding strategies, adding multiples of 10, 100, pattern counting, estimation and mental math strategies, exploring reasonableness and more. Gameboards provided, student work and journal writing will also be shared. Ideas for differentiating activities will be shared throughout so that you can meet the needs of all learners in your classroom this workshop will also be useful for grade 3 - 5 who need to reteach basic concepts to their students."
Developing Early Numeracy Through Workstations	"Number Sense in the early grades are building blocks for math success. Join us and engage in activities that focus on the development of whole number concepts. We will cover standards and activities that span PK-2, that are designed to help you engage your scholars in numeracy workstations."

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

Developing Fact Fluency with Understanding – Not Gimmicks!	Fluency is more than the memorization of isolated facts. Students need to see connections between basic number facts. They need representations of number that help form a “mind picture” that connects to a thinking strategy. This session will demonstrate simple visual aids that help students to master basic facts of the four operations with understanding – using strategies that can be extended beyond the number fact range.
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, <i>Fall Down 7 Times, Get Up 8: Teaching Kids to Succeed</i> , Debbie provides down-to-earth examples of concrete, applicable guidelines for helping students overcome setbacks and failure to foster lifelong success.
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!"

Wednesday, 10:00 AM - 11:00 AM

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."
Builders at Work: Tasks & Tools for Developing Number Sense in the Early Years	"To compute quickly, flexibly, and accurately in later grades, young children need lots of practice putting together and pulling apart numbers. This session highlights part-part-whole ideas, number bonds, and partitions to show how working flexibly with number lays the groundwork for computational fluency. We'll get hands-on with number composition and decomposition activities that encourage exploration and concept building before introducing purely symbolic representations. Join us to explore a range of open materials to help teachers explore over a dozen concept-building tasks."
Reading is LIT in the Math Classroom!	"Children's literature is a powerful tool in the primary classroom. Young students are genuinely engaged in the imaginary world created by books. In this session, participants will experience exciting ways to make books come alive while using math to solve characters' problems. We will explore measurement as students help the farmer decide which is bigger, the Big Carrot or the Enormous Potato. We will practice a problem-solving model when characters from "The Day the Crayons Quit", by Drew Daywalt come to life and present the class with notes and problems to solve while taking our supplies hostage. We will help our new friend, Molly Lou Melon, count her stacking coins, and much more."
Counting Principles: The Fastest Route to Numerical Success	"In this highly interactive session, we will explore the developmental pathway necessary for children to build their understanding of number, and how this pathway is closely connected to the Counting Principles."
STAAR Problem Solving Using Manipulatives and Children's Books	Learn research-based strategies to help all students develop problem-solving skills as they build mathematical and conceptual understanding. Participants will experience hands-on manipulative activities and games within the concrete-representation-abstract (CRA) method. Children's literature activities are included to help students apply mathematics to problems arising in every day life.

Wednesday, 11:30 AM- 12:30 PM

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.
Piecing It Together: Word Problems + Differentiation	How do you challenge all learners through word problems at their own level? This K-2 session will show you how you can differentiate your word problems by providing multiple entry points and offer support for struggling readers and ELLs. Learn how you can transform your close-ended problems into meaningful problem-solving tasks! Explore how to integrate technology and incorporate manipulatives so that every student can successfully solve word problems. Leave your close-ended problems at the door!
The 100 Chart—It's Not Just a Wall Ornament!	"Come and see how to use the 100 chart to build number sense in K-2. We will look for patterns and use the chart to solve real-world addition and subtraction problems. You will be amazed, and your students will be empowered to solve any problem you put in front of them. Handouts will be shared, and fun will be had!"
Math Connection: Literature, Manipulatives, and Problem Solving	"We "#gotmath!" We all solve problems daily. Students solve problems when learning math. How can we spark students' interest and curiosity when they are solving math problems? Let's use manipulatives, together with books, to spark your students' interest in mathematics. Your students will leave your class saying, I "#gotmath!""

Wednesday, 1:00 PM - 2:00 PM

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.
Addition and Subtraction Strategies with Regrouping	Come to this interactive session to learn and practice addition and subtraction with regrouping using effective strategies. We will be creating place-value mats and using base-ten blocks to develop conceptual understanding.
Deconstructing Numbers to Construct Number Sense: Hands-on Experiences for All Learners	"Participants will experience both the learning and teaching of kinesthetic and concrete activities to build number sense. Large models of number lines, ten and double-ten frames, and number grids will be used to kinesthetically explore counting, skip counting, and number patterns. These experiences help build a sense of quantity, awareness of patterns, and the ability to compare quantities. Participants will also explore concrete activities such as deconstructing a number grid to build a number line and collaborating to silently build a number grid. This combined kinesthetic and concrete approach enables students to more deeply understand multiple representations of numbers."
Fluency with Math Talks and Number Strings	"We know timed tests do not teach fluency, but what does? Use number strings to teach strategies that improve student efficiency and flexibility with numbers and math talks to improve students' math language and sharing of ideas. Students will learn counting and addition strategies and gain confidence in their math skills. Every student can be a math person!"

K-2 All About Addition and Subtraction	Participants will engage in identifying the problem structures and the eleven problem types in addition and subtraction word problems. Participants will create and use different strategies to solve word problems and will engage and leave with grade-level aligned workstations.
Interactive Read-Aloud in the Math Classroom	Read-aloud time is treasured in elementary classrooms ... in all classrooms. Explore how sharing favorite children's literature will enrich your math instruction and open new views into mathematical concepts!