

SESSION #6- 8:00 am - 9:00 am

NCSM Great Tasks for Mathematics, Grades 6-12 (6-8, 9-12)

Presented By: Jason Gauthier (NCSM)

Room: Salon AB

Description: Cognitively demanding tasks are one of the hallmarks of high quality mathematics instruction. These tasks have the potential not just to engender learning in students, but also to generate interest and engagement. Come experience a facilitated mathematical task and discuss ways to use similar tasks and techniques to enhance student engagement and mathematics learning.

Math Strategies that Ignite to Knock Your Socks Off (K-2)

Presented By: Lynn G. Patterson (Murray State University), Savana Jones (Murray State University), Elizabeth Hunter (Murray State University), Katherine Kuhl (Murray State University)

Room: Salon C

Description: Participants will experience a variety of interactive mathematical strategies that will ignite to "knock your socks off"•. A group of amazing Murray State University students and their professor will share and present. Understanding addition and subtraction is key to building the foundation for future mathematical knowledge and success. Strategies will be shared that allow students to construct relationships between basic facts. These strategies will ignite your students' own discovered mathematical relationships for shortcuts to knowing and understanding basic math facts. To really understand addition and subtraction, children must understand how they are related and not just memorize facts. Participants' mathematical thinking to bring best practices to teaching and learning will be "knocking their socks off" in this presentation by these awesome teacher candidates!

Fueling Family Engagement, Producing Passionate Students (K-2, 3-5)

Presented By: Emily Pinson (Julius Marks Elementary), Christy Rickert (Julius Marks Elementary)

Room: Salon D

Description: Creating a connection between schools and families is a necessary foundation for sparking a passion for math in our students. We cannot leave parents and families out of our efforts to make students successful. This session will focus on one elementary school's intentional efforts to engage parents and



families. The presentation will detail the planning and implementation of a 3-session family learning series, focused on boosting family and educator collaboration. Attendees will have the chance to participate in an interactive discussion about methods for increasing family engagement at their own schools, and will leave with an outlined plan and materials for their own family math nights!

Ignite, Fuel, Develop Composite Thinking Through Cognitively Guided Instruction in K - 5 (K-2, 3-5)

Presented By: Susan Whited (Oak Lawn Hometown SD 123), Jackie McMahon (Oak Lawn Hometown SD 123)

Room: Salon E

Description: Classroom teachers and interventionists use CGI (Cognitively Guided Instruction) as an avenue to develop composite thinking. Explore the research behind children's invented strategies and how they evolve over time and are directly related to the purposeful selection of problem types and number choices, which propel students from using direct modeling and unitary thinking to using derived fact and other strategies based on place value and the relationship between the operations. See students engaged in problem solving and reflect on student thinking. Develop and plan a ready set of resource problems and number choices for your classroom or small group instruction.

Moooving Mavis from Meh to Meaning! (K-2, 3-5)

Presented By: KCM Elementary Master Coaches

Room: Salon F

Description: Come Join Master Coaches from across Kentucky for a hands-on learning opportunity based on two key teacher principles; *Implement Tasks That Promote Reasoning and Problem Solving*, and *Support Productive Struggle in Learning Mathematics*. This session will guide participants in how to implement and engage students in tasks that motivate student learning and help build new mathematical knowledge through problem solving. In addition, participants will learn how to provide supports to engage students in productive struggle as they grapple with mathematical ideas and relationships. Come explore Moooving Mavis from Meh to Meaning!

Born to be Wild for Math Workshop (K-2)

Presented By: Kayla Adams (Kenwood Elementary School)

Room: Salon HG

Description: Math is more than numbers and algorithms. It is a time to engage



critical thinking, explore strategies, and creatively solve real-world problems. In primary grades, it can be difficult to Ignite a Passion for Math when a child's attention span ends in a matter of minutes. Math Workshop is a teaching model that will allow your students to collaborate with peers, review previously taught standards, and become problem solvers. This interactive discussion will help you experience the workshop model, specifically for Kindergarten through 2nd grade students. It will include math center ideas, a model for how to differentiate instruction, and how to develop collaborative discussions at an early age. This presentation will help design math instruction that will fuel your students' passion for math.

The Effects of Poverty on Working Memory and Math (General/All Grade Levels)

Presented By: Carri Goodman (Munfordville School)

Room: Darby Dan/Calumet

Description: Poverty creates barriers to school success. Family caregivers from low-income households are more likely to have lower levels of parenting skills, and children from these households often begin school with less mathematical knowledge than do children from more advantaged homes, a deficit that tends to hinder mathematical learning throughout the school-aged years. Working memory, which is the ability to temporarily hold information in order to perform a cognitive task, is affected by the stress of poverty. This session will ignite a discussion on working memory research and provide strategies that educators can use to adapt to the challenges presented by working memory deficits and fuel students' passion for learning math.

Number Talks K-2: Free, Fun, and Fuel For Curiosity About Math! (K-2)

Presented By: Nicole Medina (Tully Elementary School)

Room: Dixiana

Description: Want to discover exactly how to teach your children flexibility in math reasoning? In this interactive discussion, you will discover many free and engaging ways to create flexible math thinkers by using paths of discussion like Number Talks, Math Talks, Number Strings, Splat, Which One Doesn't Belong, and more. Participants will discover how conversation around math (using Talk Moves and hand signals) can ignite student interest and allow them to learn from each other to add new strategies and connect more neurons. Participants will leave with a toolbox full of ideas and resources to make it happen in your class tomorrow!



Visiting 'The Islands': Discovering Statistical Concepts using a Virtual Population and Collaborative Technology (3-5, 6-8, 9-12, Postsecondary)

Presented By: Charles Warburton (Gateway CTC)

Room: Lane's End

Description: In this interactive session participants will use an online, virtual population called 'The Islands' to discover statistical concepts on their cell phone. Additionally, attendees will be given instructions on how to create an administrative account that can be used to set up their classrooms with 'The Islands'. Other online collaborative tools will be shared that will further enhance the usefulness of 'The Islands'. 'The Islands' will ignite active learning in your classroom.

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Escape the Mundane Math Classroom! Problem-based Learning Explained (K-2, 3-5, 6-8)

Presented By: Madison Burris (Pearson)

Room: Terrace Ballroom

Description: Use hands on activities from Pearson to instruct your K-8 students in a blended math classroom. In this session you will actively investigate a balanced math lesson complete with inquiry, hands-on manipulatives, fluencies, and differentiation.

SESSION #7- 9:15 am - 10:15 am

FEATURED SESSION: Learning to Listen Through Rich Mathematical Tasks

2 HOUR PRESENTATION: 9:15 am - 11:15 am



Presented By: Mr. Zachary Champagne (Jacksonville Public Education Fund) Grade Levels: **Pre-K, K-2, 3-5**

Room: Terrace Ballroom

Description: Listening is one of the most important tools in a teacher's toolbox. In this session, we'll explore a variety of rich mathematical tasks that provide authentic opportunities for us to learn to better listen to our students. We'll also view video clips of students solving problems as an exercise in learning to truly listen.



The Impact of Technology in Teaching Conceptual Fluency (K-2)

Presented By: William LaRiccia (Solon City Schools), Tina Silvestri Gagliano (Solon City Schools)

Room: Salon AB

Description: This is an interactive session which will focus on guiding teachers to move students forward in their ability to structure number. Our goal is for participants to leave our session knowing how to extend students learning and rehearsal of skill through the use of integrating technology into learning routines, partner work, and discourse, in order to meet and/or exceed the proficiency levels outlined in the mathematical practices and fluency within the math standards. Structuring numbers promotes flexibility, confidence and excitement for mathematics! Participants need to bring laptops and/or iPads.

Numeracy Routines in the Primary Classroom (Pre-K, K-2)

Presented By: Krista Mayfield (Mary Todd Elementary School)

Room: Salon C

Description: Daily numeracy routines are a powerful way to impact a student's understanding of math. Students need purposeful opportunities to explore and manipulate numbers to better understand numerical relationships and make connections. This session will focus on examples for daily routines in the primary classroom that when implemented frequently and correctly will increase learning through meaningful and engaging practice. Through the consistency of daily routines students will build critical thinking skills and develop flexible problem-solving strategies that will help them access even the most challenging mathematics and feel successful as mathematicians.

Project-Based Learning during Workshop: Moving Students from Problems to Accomplished Competent Leaders (3-5, General/All Grade Levels)

Presented By: Amy Dickenson (Painted Stone Elementary School)

Room: Salon D

Description: This session will demonstrate how classrooms can incorporate project-based learning (PBL) into the math classroom with an example from this year's fifth grade class. Participants will take the understanding of PBL to identify in small groups ways that PBL helps to personalize learning for students. In a guided task, attendees will explore engagement of students who are able to make choices in their learning and when there are multiple outcomes to the problem.



Building a school Mathematics Team to develop a "math-positive school culture where students are engaged in sense-making and problem solving" (K-

2, 3-5)

Presented By: April Cirillo (Collins Lane Elem.), Tara Cracraft (Collins Lane Elem.), Holly Dickert (Collins Lane Elem.)

Room: Salon E

Description: Building a school Mathematics Team to develop a "math-positive school culture where students are engaged in sense-making and problem solving".

Learn how building a school-wide mathematics team can "ignite a passion for math" in your students, teachers, and school. Join this K-5 school mathematics team as they share their experience developing a math-positive school culture where students are engaged in sense-making and problem solving. In this interactive session the mathematics team from Collins Lane Elementary will share resources and strategies they found useful for building a successful school mathematics team. You will leave this session "fueled" to go back to your own school and create change.

Mastery Learning in the Real World! (3-5, 6-8, 9-12)

Presented By: Sallye Thompson (KDE)

Room: Salon F

Description: Participants will leave with a fueled desire to implement Mastery Learning in their own classroom. This session will provide a basis of 'Why?' and 'How?' to begin the journey of Mastery Learning with a clear understanding of how RTI and formative assessment play a major role in the process. Igniting a passion for student achievement in mathematics is the impetus for change.

'52' Reasons to Play Cards with Your Students (K-2)

Presented By: Jackie McMahon (School District 123), Susan Whited (School District 123)

Room: Salon HG

Description: Ignite a passion for math by teaching card games with your students! The benefits of using a standard deck of playing cards will be shared. Games will be introduced and time will be allotted to play several of the games. Join us to see how you can easily incorporate card games into your math instruction.

Spark Your Integer Knowledge (3-5, 6-8)

Presented By: Vonda Adams (Kentucky Valley Educational Cooperative), Stephanie Kidd (Kentucky Valley Educational Cooperative)



Room: Darby Dan/Calumet

Description: Ignite your students' interest in integers with the use of manipulatives to model the 'rules' of integer computation. Learn strategies and activities that will engage your students in exploring the reasoning behind the integer rules while fostering a deep understanding through the CSA (Concrete, Semi-concrete, Abstract) model, which is also referred to as the 'Build It, Draw It, Write It' model.

KCTCS Mathematics Pathways (Postsecondary)

Presented By: Jason Taylor (West Kentucky Community and Technical College)

Room: Dixiana

Description: This session will be an overview of the ongoing Mathematics Pathways project at KCTCS. The goal of the project is to create entry-level, relevant mathematics pathways courses for a variety of student needs. The progress to date, as well as plans for the future will be discussed.

Project Based Learning in the High School Classroom - Creating Meaningful Learning Experiences (9-12)

Presented By: Caroline Morales (STEAM Academy Lexington)

Room: Lane's End

Description: Project-Based Learning (PBL) is a pedagogical method that encourages students to think deeply about the application of learning. PBL promotes problem solving and critical thinking, student voice and choice in learning, and ongoing self-reflection on their learning. An issue, however, is the devotion of time to authentic student exploration outside of the skill-based curriculum, especially with the current emphasis on high-stakes assessments for students and teachers. This workshop will discuss ways to organize thematic units of study to ensure students have the requisite skills necessary while also engaging students in authentic critical thinking activities. PBL can increase student interest and passion in the world of mathematics by connecting theory to applications and problems in the students' lives. The presenter will discuss the research and implications supporting PBL as well as examples of PBL utilized in her high school classroom. The presenter will lead a discussion about how to create a thematic unit based on curricula currently utilized by participants.

Cultivating an Environment to Inspire Passionate Problem-Solvers (K-2, 3-5)

Presented By: Melinda Schwartz, Ed.D. (ORIGO Education)

Room: Bluegrass Pavilion

Description: Cultivating and maintaining an environment that honors and





promotes student thinking is vital for problem-solving. In this hands-on, minds-on session, participants will work together to explore tasks and norms that promote problem-solving.

SESSION #8- 10:30 am - 11:30 am

I struggle, You struggle, We struggle....and IT WORKS! (3-5, 6-8, 9-12)

Presented By: Tyler Teke (Tichenor Middle School / Erlanger-Elsmere Schools)

Room: Salon AB

Description: The presenter in this session will present the steps taken in classes to overcome the productive struggle and how they created a culture of math problem solvers rather than students simply solving a problem. Hear about the struggles we faced when increasing rigor and demanding students to talk about their math and the steps we took to overcome those struggles in order to be classified as a proficient school for the first time in over ten years. If you are planning on attending this session please download the free app 'Nearpod' for your device.

The First Five (K-2, 3-5, 6-8)

Presented By: Sarah Shaffer (Kirksville Elementary), Judy Winkler (Madison Middle School)

Room: Salon HG

Description: How do you fuel the passion for math? By starting each day with an engaging first five minutes that serves as a productive warm-up for your students! When we begin our lessons, we often forget to invite students to be successful each day. When students don't feel successful with the typical review "bell ringer" They lose interest in learning. During this session, you will hear how two coaches in Madison County have worked with teachers Grades 1-8 to build up "The First Five" minutes of class each day to fuel student passions for math. Participants in this session will receive resources and materials to help ignite the love of mathematics back into their classrooms that they can implement immediately.

Building Fluency One Game at a Time (K-2, 3-5)

Presented By: Pam Croft (East View Elementary), Maggie Jagoe (East View)

Room: Darby Dan/Calumet

Description: Description: Students of all ages love to play games that are fun and motivating. This presentation will give participants hands-on, engaging games to help build math fact fluency and ignite their passion for math! Participants will take away ideas for fluency building games, apps, and computer programs



appropriate for grades K-5. These games can be used in small group center time and are not only fun, but also deepen students' mathematical understanding and reasoning.

The Moon Project: Using Project Based Learning to Spark a Passion for Math (9-12)

Presented By: Samantha Dougherty (Central Hardin High School)

Room: Dixiana

Description: Spark a passion for learning math by using project based learning to explore how patterns in the moon cycle can be modeled using trigonometric functions. Students will stop asking why do we have to learn this and start asking can we work on our project today? Discover the value of project based learning by focusing on Common Core Standards, the Math Practices, and 21st century skills during an analysis of actual student data. Discuss the process for implementing a project and leave with a ready to use project for your class.

Engaging with CCSS Mathematical Practices and Statistical Content (6-8, 9-12)

Presented By: Susan A. Peters (University of Louisville)

Room: Lane's End

Description: Explore middle and high school statistics content for summarizing, representing, and interpreting data. The hands-on and cognitively demanding activities shared in this session will engage you with mathematical practices as you explore key concepts in statistics. Consider how these and similar activities can pique students' interests in statistics and advance their abilities to answer statistical questions through statistical problem solving.

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Addition My Way: Igniting passion and understanding of basic addition facts (K-2)

Presented By: Craig Willmore (ORIGO Education)

Room: Bluegrass Pavilion

Description: Teachers will be treated to a variety of fun and engaging games that focus attention to basic facts in addition and subtraction. Participants will work in pairs to play games and justify their thinking strategies. Participants will be provided with handouts of games that can be used In classrooms to reinforce basic facts.



JOIN US FOR A COMPLIMENTARY LUNCH!



11:30 am-12:30 pm Grand Ballroom

KEYNOTE ADDRESS

Dr. Jonathan Thomas
University of Kentucky
Family Ties, Growing Pains, and The Wonder Years

SPECIAL GUEST

President Robert King Council on Postsecondary Education

SESSION #9- 12:45 pm - 1:45 pm

FEATURED SESSION: Intentional Talk

2 HOUR PRESENTATION: 12:45 pm- 2:45 pm



Presented By: Dr. Allison Hintz Grade Levels: **Pre-K, K-2, 3-5** Room: Terrace Ballroom

Description: Not all mathematics discussions are alike. It's one thing to ask students to share how they solved a problem, to get ideas out on the table so that their thinking becomes visible; but knowing what to do with students' ideas—where to go with them—can be a daunting task. In this session, we think together about principles to support discussion, how to identify a discussion's goal and how to structure and facilitate a conversation to meet that goal. Through vignettes, videos of classroom episodes, and planning templates (from both primary and upper elementary classrooms), we will explore open strategy share discussions and targeted discussions.



FEATURED SESSION: Capturing Learners Through Mathematical Modeling

2 HOUR PRESENTATION: 12:45 pm - 2:45 pm



Presented By: Dr. Rose Mary Zbiek
Grade Levels: General/All Grade Levels

Room: Salon C

Description: We can fuel students' passion for mathematics by asking intriguing questions about things that matter to them. Mathematical modeling begins and ends in real questions in the real world. Engaging students in aspects of modeling with the need to engage students in a focused and coherent K-12 curriculum. We will engage in and develop our own mathematics problems that take us from mathematical exercises and word problems to more open tasks and modeling problems that fit in your curriculum. The techniques can be used daily and joyfully in K-12 settings.

Rethinking Math Culture: Proven Ways to Develop School-Wide Math Mindset (K-2, 3-5, 6-8)

Presented By: David Woods (DreamBox Learning)

Room: Salon AB

Description: Developing a strong math culture can support students' self directed learning, as they pursue their passions in career and life, we must help them develop skillsets that encourage them to persist and grow. This seminar highlights how educational leaders can help teachers and students develop a deep connection to and love for mathematics, one that supports a vision of transformation and a growth mindset beyond the classroom.

Strategy Sculptures: Visualizing Structure with Linking Cubes (K-2)

Presented By: Nick Harris (Daniel Boone Elementary)

Room: Salon D

Description: Building a conceptual understanding of quantity is an integral step in developing numeracy. Ten frames, Rekenreks, and other existing tools can be a great way to help students visualize quantity, but they have their limitations. Participants will get a hands-on opportunity to design and build Strategy Sculptures using linking blocks. These sculptures afford teachers and students with the ability to see the internal structures within numbers in a way that is tactile, conceptual, and highly engaging. Come see how Strategy Sculptures have been used in the first grade and leave with ideas about how to adapt them for your classroom!



Going Gradeless & The Positive Climate It Creates (3-5, 6-8, 9-12)

Presented By: Chasity Gregory (East Hardin Middle School)

Room: Salon E

Description: As the push for customized learning continues to spread throughout the educational world, come take a look at how Standards Based Grading in a gradeless classroom works and the positive climate change it creates! This technique is the most informative for parents and students to see their strengths and weaknesses. And allows for opportunity for students to take ownership of their learning process.

Making Math Significant: Launching with Real-World Problems to Engage All Students at Their Level (3-5, 6-8)

Presented By: Dawn Harrod (Shelby West Middle), Michael Dennis (Eminence Independent District)

Room: Salon F

Description: 'Why do i need to know this?' our students would ask before checking out. Our classrooms consisted of demonstrating a skill and students attempting to repeat it using my thinking. Join us as well investigate how we can put the 'why' back into the math classroom by including low-floor, high-ceiling tasks that are mostly grounded in real-world scenarios. By making tasks that are accessible to all students but that can be solved in multiple ways, we are able to engage and challenge multiple levels of learners in our classrooms.

Playground Mathematics - Igniting A Passion For Math In The Real World (3-5)

Presented By: Britt Bush (Tilden Hogge Elementary)

Room: Salon HG

Description: Playground Mathematics is an interactive demonstration of how to turn your playground into a relevant, hands on tool for engaging whole class instruction. Any school playground provides a wonderful place to earn and put into practice mathematical concepts found in the Kentucky math standards for 3rd through 5th graders. In this session, teachers and curriculum coaches alike will take away ideas for getting your students hands on experience with measurement, graphing, geometry, division and many more concepts covered at the primary to intermediate level. Too often our elementary students struggle to find a passion for math. This session delivers ideas that put them in the field and relates mathematical concepts to real world careers within the safety of their own playground. Construction, design, surveying, and cartography are a few of the careers that are discussed and related to the standards. Join this session to learn



outside of the box ways, outside of the classroom, to ignite your elementary students passion for math.

Igniting your Students with Adding Tech in the Classroom (General/All Grade Levels)

Presented By: Danielle Washburn (Jefferson County Public School)

Room: Darby Dan/Calumet

Description: Have you ever wondered about different ways to get students excited and engaged while learning Math? In this session, participants will learn how to implement technology in their classroom. Participants will learn how to appropriately use different tools strategically. Participants will be filled with a newfound passion for technology and math and your students. This session is for the teacher that has never implemented technology other than a calculator in the classroom and for that teacher that has experience implementing technology in the classroom. Teachers are encouraged to bring a device to this session as they experience each technological tool.

Math Recovery Intervention Specialist Refresher - Determining Stages of Early Arithmetical Learning (SEAL) (K-2)

Presented By: Jean Bingham (Central Elementary), Lisa Riggs (Kentucky Center for Mathematics)

Room: Dixiana

Description: This K-2 session is for Math Recovery Intervention Specialists ONLY and will involve watching 1.1 video clips and determining the SEAL based on evidence. Time will be given for participants to share video clips of assessment or instruction to meet the USMRC MRIS renewal requirements. Please bring a video clip to share.

Using Taxicab Geometry to Explore Euclidean Geometry Concepts (9-12, Postsecondary)

Presented By: Bethany Noblitt (Northern Kentucky University)

Room: Lane's End

Description: Providing students with a new lens through which to consider mathematical concepts can ignite renewed interest in and passion for mathematics. Taxicab geometry can be such a lens. Taxicab geometry is a non-Euclidean geometry that is accessible to high school and college students. In this session, participants will engage in several taxicab geometry activities designed to deepen understanding of Euclidean geometry concepts. After participants discuss



their results, we will discuss further questions that arise when exploring Euclidean concepts in taxicab geometry.

Utilizing Number Lines to Ignite Understanding (3-5)

Presented By: Melinda Schwartz, Ed.D. (ORIGO Education)

Room: Bluegrass Pavilion

Description: Research indicates a relationship between students' experiences with number lines and their mathematical achievement. In this interactive session, participants will engage in games and activities to help students improve their understanding of mathematical concepts by using the number line.

SESSION #10- 2:00 pm - 3:00 pm

Mathematics = Nature or Nurture? (K-2, 3-5)

Presented By: Nicole Weyman (Ninth District Elementary School)

Room: Salon AB

Description: Is mathematics something students either have (meaning they are born with a math brain) or don't have, OR can math be developed through experience?

Many people believe they either have "it", referring to a mathematical mindset, or they don't. In this session, teachers will discuss Jo Boaler's book, Mathematical Mindsets. Teachers will acquire the knowledge and skills necessary to instill a growth mindset when teaching mathematics to their students. Participants will take part in group work and interactive discussions, and they will leave with tools they can use in their classrooms. This session will create a passion within teachers which will, in turn, light the flame for students to grow in their love for mathematics by allowing them to see that everyone is capable of learning mathematics.

Using the Bead String to Structure Composite Units and Develop Facile Strategies (Pre-K, K-2, 3-5)

Presented By: Dina Mendola (US Math Recovery Council®)

Room: Salon D

Description: The 100 bead string is a powerful tool in helping students envision, make connections, and verbalize number relationships. Our goal is to get students facile with structuring composite units, but how we get them there is the KEY!

Come explore the learning trajectories and corresponding bead string activities



that will engage students and build deeper connections with foundational knowledge needed to develop conceptual place value.

Facilitating Rich Math Tasks (K-2, 3-5)

Presented By: Emily Kennedy (Painted Stone Elementary), Kaitlin Sams (Southside

Elementary School)

Room: Salon E

Description: This session will focus on the selection and implementation of high quality mathematics tasks that foster the standards of mathematical practice as they are foundational to exemplary mathematics instruction. We will analyze student work, and explore ways to address misconceptions and ideas about next steps for re-teaching, enriching, or extending our students' thinking.

Changing Math Anxiety into a Mathematical Mindset (3-5, 6-8)

Presented By: Stephanie Walker (West Middle School), Michael Dennis (Eminence Independent Schools)

Room: Salon F

Description: Several variables influence a student's perception of their mathematical ability. At an early age, children begin to develop a mathematical identity. Students believe they are good at math or not and feel powerless to change it. Once a negative perception is created, future experiences with mathematics produce anxiety and a sense of failure. The anxiety is real, and it can only subside in a classroom where all mathematicians are appreciated and encouraged. Reducing fears and anxieties connected to math allows students on all academic levels to reach their true mathematical potential. There are specific strategies and structures teachers can use to ensure everyone can be good at math. Join us for a look at the battle teachers are facing with math anxiety, the science behind it, and the moves that can be made in the classroom to encourage a mathematical growth mindset.

Student Led Conferences (3-5)

Presented By: Anna Burton (Crossroads Elementary School) Room: Salon HG Description: Students feel a sense of ownership when they accumulate data and evidence of their accomplishments. This session will give you tools to have your own Student Led Conferences and show evidence that Student Led Conferences are beneficial for parents, students, and teachers.



'FOOD for THOUGHT' Eating your way through middle school math. (6-8)

Presented By: Brianne McDowell (Mason County Middle school)

Room: Darby Dan/Calumet

Description: Food will always get the attention of students. So, what better way to get them engaged? This session will be hands on to demonstrate several ways to make math fun, filling and memorable for middle school students. We will be eating our way through lessons of ratio and proportions, distributive property and combining like terms. We will, also, use pasta noodles as geometric manipulatives to reinforce the concepts of transversals and angle measurements. Bon Appetit.

Pyramid Passion: Using Zoomtool to Engage Students in Learning about 3D Solids (3-5, 6-8, 9-12)

Presented By: Cheryll E. Crowe (Asbury University)

Room: Lane's End

Description: Zometool is a popular system of 3D struts and connector nodes that enables students to engage in meaningful mathematical explorations at the elementary, middle, and high school levels. This presentation will begin with a brief history and overview of Zometool. Participants will then use a Zometool set to generate unique pyramids and discuss applications of the system to help students become passionate about geometric thinking. Materials to implement Zoomtool in the classroom will be provided to each participant.