

2023 MCTM Conference Strands

Effective Math Teaching Practices

Sessions in this strand will have direct ties to the National Council of Teachers of Mathematics research based effective math teaching practices. These include establishing goals to focus learning, implement tasks that promote reasoning and problem solving, use and connect mathematical representations, facilitate meaningful mathematical discourse, pose purposeful questions, build procedural fluency from conceptual understanding, support productive struggle and elicit and use evidence of student thinking. Sessions focused on the [Essential Instructional Practices in Early Mathematics](#) and the [Disciplinary Literacy Essentials](#) also fall within this strand.

Building Mathematical Knowledge for Teaching

Teaching requires both content knowledge (math content) and pedagogical content knowledge (teaching math effectively). This strand focuses on the former and includes learning on the mathematical learning progressions. What are the three aspects of number? What is the use of representations when we want students to see mathematics abstractly? How might [Advantage Math Recovery](#) help students understand properties of numbers? How does skip counting transition to early multiplication? These questions and more will be answered within this strand. Building on a foundation of early numeracy is essential to later student success. Building teacher content knowledge is the focus of these sessions.

Experiencing the Joy of Mathematics

Mathematics classrooms should be lively, explorative, collaborative, and fun! We should see students bent over, engrossed in work or looking at a peer and smiling or questioning. We should see fist bumps and hear both groans and celebrations as students move through cycles of productive struggle. Sessions in this strand could focus on student voice and choice or structures to support collaboration and student talk. They could focus on building a community of learners, creating meaningful experiences that cement learning, or ways to draw in reluctant learners. Beyond creating joy for students, in what ways can we support teachers in finding joy in this work? Building a love of math through joyful experiences- for both students and teachers- is the center of the work in this strand.

Secondary Categories/Tags

- Grade Level: Grade Level bands include K-2, 3-5, 6-8, 9-12, and Higher Education, and identify the target audience for the session.