



## 2022 Indianapolis Regional Conference & Exposition

Theme: Refresh, Reflect, and Reconnect

### Strand Titles & Descriptions

#### Collaborating and Engaging with Tools and Technology

Tools and technology have been particularly relevant as we navigate among in-person instruction, distance learning, and various combinations of the two. We've had to reimagine the role of tools and technology to consider how we can leverage them to bring quality instruction to each and every student in new ways, no matter how they are joining the classroom. Presentations in this strand will bring innovative ideas for using tools and technology as a means of supporting effective instruction, collaborating with other professionals, engaging students with one another, assessing student learning, and building and maintaining relationships with students and families.

#### Access and Equity Both Revealed and Revisited

How are we creating inclusive classrooms that allow all students access to high-quality mathematics? By implementing equity-based teaching practices and advocating for the empowerment of each and every learner to experience school mathematics as a whole person, we can dismantle barriers—especially for those who have been marginalized by race, class, ethnicity, socioeconomic status, or gender. Presentations in this strand will highlight how to build student agency using resources such as technology to employ, establish, and foster parental involvement; encourage the use of cultural and linguistic resources; build a student's mathematical identity through self-advocacy in an online/virtual environment; and promote access for each and every learner of mathematics. Presentations and sessions may also examine how educators can dismantle inequitable structures and replace them with policies and practices that broaden the purposes of learning mathematics.

#### Joy of Teaching, Learning, and Doing Mathematics

How can we strengthen our love of mathematics by engaging in and learning new mathematics? How can we rekindle the joy of teaching for us, which in turn will help our students find joy in learning and doing mathematics? Many of us chose to teach because of an influential teacher who taught us at one time, or because of the joy and satisfaction we received from doing mathematics. Presentations in this strand will highlight mathematical learning for teachers, with sessions focusing on engaging teachers in active problem solving, reasoning and proof, encouraging communication, and exploring connections and representations. Presentations may or may not find their way into the classrooms of the teachers but are intended to embed teachers in a culture of questioning and problem solving, and toward refilling our “mathematical cups.”

## Teaching and Learning in the Current Era

How have your instructional practices changed or grown as a result of the pandemic? What lessons have you learned about effective mathematics instruction that have led to transformational changes you will continue after the pandemic? Creating effective learning environments for each and every student requires implementing research-informed and equitable teaching practices. Presentations in this strand will discuss mathematical teaching practices while highlighting classroom-tested activities that allow each and every student to engage with and find success in mathematics. To promote deep mathematical learning, presentations may include the following: goals to focus learning, high-level tasks, robust assessments, connections and mathematical representations, effective questioning strategies, productive struggle, and technology that supports visualizing and comprehending mathematical ideas.

## Broadening the Purpose of Mathematics

Now more than ever, our students need mathematics to make sense of the world. NCTM's Catalyzing Change series calls us to "empower each and every student with deep mathematical understanding and positive dispositions toward mathematics that support interactions with mathematics throughout life" (Catalyzing Change in Early Childhood and Elementary Mathematics: Initiating Critical Conversations, p. 11). Fostering the wonder, joy, and beauty of mathematics is imperative as we cultivate the mathematical mindset students need to understand and examine the world around them. Presentations in this strand will highlight ways in which educators "situate the learning of mathematics not only as important for college, career, and life but also as a human endeavor that values historical, cultural, and aesthetic perspectives of mathematics" (p. 11).

## Leveraging Assessments to Promote Student Learning and Improve Instructional Programs

This strand highlights the different purposes of assessment in mathematics teaching and learning. Presentations in this strand will address how assessment can be an integral part of instruction to promote student learning, ways in which assessment can provide evidence about all components of students' mathematics learning—including strengths and intellectual gifts—and ways in which assessment can provide an accurate picture of teacher and student performance. Presentations may also address the role of technology in assessment, the use of formative assessment in the classroom, the way assessment can inform program improvement, and strategies to overcome unintended consequences of assessment.

