



2018 Kansas City Strands & Descriptions

All proposals must be submitted to a unique topic strand. You will select your strand along with your grade band audience on the “Topics” step of the proposal submission. See below for strand titles and descriptions:

Teaching & Learning: Engaging Students in Meaningful Learning

Engagement in mathematics can move beyond just having students engaged for the sake of having fun in the classroom to a place where they are actively engaged with rigorous mathematics. Presentations in this strand focus on either individual engagement with rigorous mathematics or students engaging collaboratively to make sense of mathematics together.

Celebrating Differences: Access, Equity, and Empowerment

Historically, some groups have been purposefully left out of the vision of who can succeed in mathematics. NCTM has long valued explicitly supporting each and every student and teacher in developing identity and agency as people who can do mathematics, and celebrating the diversity perspectives brought by different social identities. Presentations in this strand focus on mathematics for social justice, on addressing our own biases, as well as empowering diverse students to consider careers in mathematics and other STEM fields.

Specializing Education: Access, Equity and Empowerment

Each and every student deserves access and opportunity to engage with rich, rigorous, and relevant instruction that cultivates mathematical abilities and supports learning and understanding. Presentations in this strand share practices, strategies, and methods to support students who experience mathematical difficulties and/or students who are English Language Learners.

Curriculum: Making Connections

Curriculum should reflect inherent connections in mathematics and engage students in meaningful experiences to explore mathematical interconnectedness. Presentations in this strand prioritize teaching mathematics for sense-making and developing greater understanding. Purposeful connections are highlighted and explicitly demonstrated in ways that mathematical concepts are discussed and explored in further depth within and across grade bands.

Tools and Technology

Every new innovation in technology and teaching and learning tools can serve to reinforce the status quo or to create meaningful change. Presentations in this strand will emphasize ways in which tools and technology can provide purposeful affordances in engaging students in creating, comparing, conjecturing, and constructing mathematical arguments. The use of tools and technology - if and when appropriate - can support the vision of students making sense of their own and others' ideas.

Assessment

The word "assessment" comes from the Latin word meaning "to sit by" giving us the image of educators sitting beside their students listening to their ideas. Presentations in this strand focus on various types and uses of effective assessment - formative and summative and those that assess individual students as well as the whole class. Presentations explore types of assessment results that are most useful for eliciting and using evidence of student thinking. Most importantly, the presentations will support the capacity to use assessment results to inform future instruction.

Professionalism: Collaborating and Growing Together

While we might be the only teacher in our classroom at times, we do not have to journey alone. Presentations in this strand highlight effective ways of partnering with other classroom teachers, special educators, mathematics coaches, English language teachers, specialists, and/or administrators. Presentations emphasize collaborations that challenge us and hold us accountable to one another and to professional growth, as well as collaborations that support lifelong learning.

Innovations in Integrated Learning

Empowering students through exploration and authentic mathematics experiences can be transformative for teaching and learning. Presentations in this strand highlight effective implementation of experiential, integrated learning, which may include design thinking, project-based learning, problem-based learning, and engineering design.
