



2018 DC Annual Meeting 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:

Tools and Technology: Using Technology to Effectively Teach and Learn Mathematics

Sessions in this strand include, but are not limited to, the innovative implementation of tools and technology, along with ways to use tools and technology to promote critical thinking and engagement, visualize and understand mathematical ideas, help students communicate their mathematical thinking, or build community and connection. In addition, sessions that address how courses in computer science can support mathematical reasoning and instructional goals are welcome.

Access, Equity & Empowerment: Teaching Mathematics with an Equity Stance

This strand will focus on illuminating and eliminating inequities in mathematics education by sharing actions that can be implemented to reframe, reconceptualize, and/or intervene in order to provide high expectations for each and every student and disrupt the status quo. Sessions in this strand include, but are not limited to, pedagogical approaches that empower diverse populations of learners, including culturally responsive teaching, teaching for social justice, teacher noticing, and differentiation. Presentations focusing on theoretical foundations in social justice that frame equitable mathematics teaching and that permeate other strands and sustainable practices at all levels to promote fair and equitable mathematics teaching and learning are also encouraged.

Purposeful Curriculum: Cultivating Coherence and Connections

Sessions in this strand include, but are not limited to, the coherent development of mathematics curricula, learning progressions, and connections across topics and across all grade levels. Sessions that highlight the role that application, modeling, and contextualization should play, along with associated challenges, are encouraged. We invite reflection on current trends such as the meaningful use of teacher-created tasks and lessons, the use of technology, and the effective use of open curricula, especially as they relate to cultivating coherence and connections. Proposals with special emphasis on high school pathways are encouraged.

Teaching, Learning, and Curriculum: Best Practices for Engaging Students

Classroom communities that provide access to meaningful mathematics through collaboration, coherent discourse, and student engagement empower learners to be successful in mathematics. Moreover, effective teaching of mathematics supports students’ conceptual as well as procedural understandings. Sessions in this strand include, but are not limited to, those that showcase classroom-tested and/or research-supported ideas and strategies, particularly the eight research-informed instructional practices from NCTM’s *Principles to Actions*, as well as equitable instructional practices, that create effective mathematics experiences and position each and every student to make sense of mathematics.

Assessment: A Tool for Purposeful Planning and Instruction

Assessment is an integral component of planning mathematics instruction to best meet the needs of each and every learner in the classroom. Sessions in this strand include, but are not limited to, those that examine various assessment types and assessment that connects mathematics content and practices, as well as examining assessment that uses data to inform and provide feedback to teachers and students, support instructional decisions, and improve programs. Sessions that are aligned with principles of formative as well as summative assessment are welcome.

Professionalism: Learning Together as Teachers

Mathematics teachers are professionals whose work stretches beyond the four walls of their classroom. Through effective professional learning, teachers engage in a mathematical community that inspires, supports, and encourages ongoing growth and learning. Sessions in this strand will focus on, but not be limited to, both cultivating teacher's professional interests and activities such as lesson study, action research, book study, mentoring, collegial planning, coaching, social media, and virtual collaboration. Sessions that equip teachers to work with broader communities, such as advocating in their buildings and districts, addressing parent concerns, and working with researchers are encouraged.

Mathematical Modeling: Interpreting the World through Mathematics

According to the [GAIMME Report](#), "Mathematical modeling is a process that uses mathematics to represent, analyze, make predictions or otherwise provide insight into real-world phenomena." The Common Core State Standards for Mathematics, as well as many state standards, have an emphasis on mathematical modeling. Sessions in this strand will focus on, but are not limited to, how to find and design effective mathematical models, how to determine if mathematical models are reasonable and effective, working with open-ended tasks with potentially multiple solutions, and using applications of technology to make sense of mathematics.

Emerging Issues and Hot Topics

Mathematics education is fluid, with new developments and issues constantly emerging. Sessions in this strand may include, but are not limited to, emerging ideas and practices rooted in, expanding on, or challenging existing literature or developments in educational policy. Presentations should be forward-thinking and characterized by pioneering, innovative, or non-traditional thinking and practice. This strand particularly supports presentations across grade bands and content areas.
