

A Toolkit for Social Emotional Learning in the Mathematics Classroom

DE SEL Competencies and Benchmarks					
Competency	Self-Awareness	Self-Management	Social Awareness	Relationship Skills	Responsible Decision Making
Benchmarks	1A. Demonstrate an awareness of one's own emotions 1B. Demonstrate an awareness of personal qualities and interests 1C. Demonstrate an awareness of one's own strengths and opportunities for growth 1D. Demonstrate a sense of personal responsibility and advocacy 1E. Identify external and community resources and supports	2A. Understand and use strategies for managing one's own emotions and behaviors constructively 2B. Set, monitor, adapt, and evaluate one's own goals to achieve success in school and life	3A. Demonstrate awareness and consideration of other people's emotions, perspectives, and social cues 3B. Exhibit civic responsibility in multiple settings 3C. Demonstrate an awareness of and respect for human dignity, including culture and differences	4A. Use positive communication and social skills to interact effectively with others 4B. Develop and maintain positive relationships 4C. Demonstrate an ability to prevent, manage, and/or resolve interpersonal conflicts in constructive ways	5A. Consider and use multiple factors in decision making, including ethical and safety factors, personal and community responsibilities, and short-term and long-term goals 5B. Develop, implement, and model effective decision-making skills to deal responsibly with academic and social situations

Investing in students' social-emotional development is done by the entire system of adults in schools. This investment is key to promoting engagement in—not a substitute for—teaching academic content; it represents a change in how academic content is taught.

The following toolkit is designed to be a starting point for school staff, counselors, and community members to begin integrating SEL into their mathematics teaching practices and interactions with children. Members of the school community and larger community can use this toolkit to find initial strategies and resources to improve student social, emotional, behavioral, and in the mathematics classroom. It is arranged in sections:

- **Basic General Resources** - This is a targeted list of freely available resources that attend to some or all of the DE SEL Competencies shown on the above table. Along with the [DE Social and Emotional Learning \(SEL\) Competencies](#) and the [DE SEL to CCSS-MP Crosswalk](#), these resources provide a significant starting point from which to begin integrating SEL into mathematics teaching and learning.
- **Resources for Further Reading** - This list is provided for those who are ready for additional investigation beyond those provided in the Basic General Resources. Some resources on this list are books for purchase.

DE Social and Emotional Learning - Mathematics Resources

Basic General Resources

[Inside Mathematics Social and Emotional Learning and Mathematics](#), UT Dana Center

Here, you'll find an explicit unpacking of the connections among the mathematical practices and SEL competencies, as well as supports for integrating them in your classroom instruction. These resources were created by panels of experts in mathematics education and in social and emotional learning, along with teams of educators serving as co-developers. It is recommended that each resource is reviewed completely, teachers may find the three Instructional Guides found at the bottom of this page to provide a clear line of sight into the application of SEL Competencies within the mathematics classroom, highlighting connections to facilitation and assessment.

A Pathway to Equitable Math Instruction, Stride 3: Creating Conditions to Thrive

(Note: Download access to Stride 3, including its four Guidebooks, can be found [here](#).)

Environments and practices that support students' social, emotional and academic development (SEAD) in the areas of **agency, belonging, discourse, and identity**. Review the Stride overview before diving into the four guidebooks.

- a. [Agency Theme Guidebook](#): NCTM defines agency as "the presentation of one's identity to oneself and to others, combining identity (who we are) with what we can do (agency). Agency is evident in a student's self-awareness and self-management, and his/her sense of confidence and knowledge about academic work." CASEL describes the characteristic of agency *in mathematics* as also including cultural competence and cultural fluency. *See this guidebook to connect CASEL's characteristics of **agency** and the [CCSS-MPs](#).*
- b. [Belonging Theme Guidebook](#): Belonging is defined as a "sense of fitting in or feeling like you are an important member of a group" ([vocabulary.com](#)) or "To be a member of (a club, organization, etc.)." ([Merriam Webster Learner's Dictionary](#)). *See this guidebook to connect CASEL's characteristics of **belonging** and the [CCSS-MPs](#).*
- c. [Discourse Theme Guidebook](#): NCTM defines discourse as "ways of representing, thinking, talking, agreeing, and disagreeing; the ways ideas are exchanged and what the ideas entail; and as being shaped by the tasks in which students engage, as well as by the nature of the learning." CASEL describes the characteristic of discourse *in mathematics* as

	<p>also including: encouraging student academic talk in mathematics instruction; increasing student talk time so it is balanced with, or exceeds, teacher talk within lessons; and allowing for opportunities for students to understand the viewpoints of others, including both/multiple sides of an issue. <i>See this guidebook to connect CASEL’s characteristics of discourse and the CCSS-MPs.</i></p> <p>d. Identity Theme Guidebook: NCTM defines identity as “the dispositions and deeply held beliefs that students develop about their ability to participate and perform effectively in mathematical contexts and to use mathematics in powerful ways across the contexts of their lives.” CASEL describes the characteristic of identity <i>in mathematics</i> as also including: understand the links between personal and sociocultural identities that are defined by cultural and/or family values, ethnicity, race, socioeconomic status, gender, and other factors; ground oneself in and affirm one’s cultural heritage(s) or communities. <i>See this guidebook to connect CASEL’s characteristics of identity and the CCSS-MPs.</i></p> <p>2020-21 Priority Instructional Content for ELA/Literacy and Mathematics, Student Achievement Partners</p> <p>While these documents were created for the 2020-21 academic year, they remain helpful for those setting academic priorities for 2021-22. Beyond the guidance concerning academic content, for each grade level, sample actions are shown for how SEAD can be effectively integrated into grade-level mathematics instruction, in connection with Standards for Mathematical Practice.</p> <p>Inclusive Practice Tool: SEL Planning Tool, Massachusetts DOE</p> <p>This tool is designed to help design lesson plans for instruction in social-emotional learning. It provides examples of instructional practice that promote each of five SEL competencies identified by the Collaborative for Academic, Social, and Emotional Learning (CASEL). It also includes space for educators to identify the type of approach to SEL instruction demonstrated and space for educator reflection.</p>
<p>Resources for Further Reading</p>	<ul style="list-style-type: none"> ● Aguirre, J. M., Mayfield-Ingram, K., & Martin, D. B. (2013). <i>The impact of identity in K-8 mathematics learning and teaching: Rethinking equity-based practices</i>. Reston, VA: National Council of Teachers of Mathematics. ● Brahier, D., Leinwand, S., & Huinker, D. (2014). <i>Principles to actions: Ensuring mathematical success for all</i>. Reston, VA: National Council of Teachers of Mathematics. ● Government of Ontario Department of Education (2021) Strands in the Mathematics Curriculum: SEL and Mathematical Processes.

<https://www.dcp.edu.gov.on.ca/en/curriculum/elementary-mathematics/context/the-strands-in-the-mathematics-curriculum>

- NCTM's [Catalyzing Change Series](#)
 - Catalyzing Change in Early Childhood and Elementary Mathematics
 - Catalyzing Change in Middle School Mathematics
 - Catalysing Change in High School Mathematics