

How Teachers Can Plant SEAD (Social, Emotional, and Academic Development) in Math

What is SEAD?

SEAD, or social, emotional, and academic development, refers to the integration of social and emotional learning into academic instruction. Math classrooms are fertile ground for planting SEAD, which supports the growth of meaningful skills for learning and life.

Social skills such as:

- Cooperating and working on a team
- Bravely articulating ideas and solutions

Emotional skills such as:

- Understanding others' perspectives
- Coping with frustration and stress

Academic skills such as:

- Staying focused
- Persevering
- Problem-solving



What are the benefits of SEAD?¹





- Fewer behavioral problems
- Less emotional distress
- Improved academic outcomes

Who benefits from SEAD?^{2,3,4}

All students benefit. While SEAD supports educational equity, educators must intentionally integrate it in culturally inclusive ways that counter privilege, prejudice, and structural inequities.

See the next page for strategies on how to plant SEAD.

How do I plant SEAD?⁵

-  Consider your assumptions and biases about what social and emotional skills “should” look like, and think about how you already embed social and emotional learning in your classroom practice.
-  Create learning environments that are physically and emotionally safe.
-  Intentionally teach social, emotional, and cognitive skills.
-  Have students practice these skills in their interactions and as they learn academic content.

Example strategies for connecting social and emotional capacities to math instruction

Social and emotional capacity	Math instructional strategy
Have a growth mindset	Teach a lesson about growth mindset at the start of the year; then praise growth and effort throughout the year.
Experience self-efficacy	Provide opportunities for students to work on open-ended tasks that allow for multiple approaches.
Identify personal, cultural, and linguistic assets	Bring students’ identities and assets into the unit by celebrating critical contributions of mathematicians of color, those who are neurodiverse, those from different countries, and those who speak different languages.
Identify one’s emotions	Normalize feelings about math by having students identify when they are feeling frustrated or nervous during math class by using a smiley face or rating system on their assignments.
Show the courage to take initiative	Recognize and use mistakes as opportunities to deepen learning.
Recognize strengths in others	Have a fishbowl activity in which a small group of students engage in problem-solving as other students observe and identify strengths in their approach.
Work in teams and collaboratively solve problems	Assign roles (group manager, notetaker, etc.) and provide communication protocols for collaborative group activities.

Ready to plant SEAD in math?

Access the blog post [Planting SEAD in Mathematics for Meaningful Learning](#) for more information and resources, including a digital version of this infographic.



¹ Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students’ social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405-432.
<https://doi.org/10.1111/j.1467-8624.2010.01564.x>

² Gregory, A., & Fergus, E. (2017). Social and emotional learning and equity in school discipline. *Future of Children*, 27(1), 117-136.
<https://eric.ed.gov/?id=EJ1144814>

³ Jagers, R. J., Rivas-Drake, D., & Borowski, T. (2018). *Equity and social-emotional learning: A cultural analysis*.
<https://casel.org/frameworks-equity/>

⁴ Jones, S. M., Brush, K. E., & Ramirez, T., Mao, Z. X., Marenus, M., Wettje, S., Finney, K., Raisch, N., Podoloff, N., Kahn, J., Barnes, S., Stickle, L., Brion-Meisels, G., McIntyre, J., Cuartas, J., & Bailey, J. (2021). *Navigating SEL from the inside out* (2nd ed.). The Easel Lab at Harvard Graduate School of Education.
<https://www.wallacefoundation.org/knowledge-center/pages/navigating-social-and-emotional-learning-from-the-inside-out.aspx>

⁵ National Commission on Social, Emotional, and Academic Development. (2019). How learning happens. In *From a nation at risk to a nation at hope* (pp. 11-28). Aspen Institute.
<https://eric.ed.gov/?id=ED606337>

Learn more about REL Appalachia and find additional resources: <https://ies.ed.gov/ncee/rel/region/appalachia>