

## Kentucky Academic Standards: Mathematics

### Research Scan

The KDE provided the following foundational documents to inform the writing team's work:

- Charles A. Dana Center, University of Texas at Austin. *Inside Mathematics, Mathematical Practice Standards*. <https://www.insidemathematics.org/common-core-resources/mathematical-practice-standards>
- Charles A. Dana Center, University of Texas at Austin. *Re-Envisioning Mathematics Pathways to Expand Opportunities: The Landscape of High School to Postsecondary Course Sequences*. (2022). [https://edstrategy.org/wp-content/uploads/2022/07/Re-Envisioning-Mathematics-Pathways-to-Expand-Opportunities\\_FINAL.pdf](https://edstrategy.org/wp-content/uploads/2022/07/Re-Envisioning-Mathematics-Pathways-to-Expand-Opportunities_FINAL.pdf)
- Florida Department of Education. (2019). *Florida's B.E.S.T. Standards: Mathematics*. <https://cpalmsmediaproduct.blob.core.windows.net/uploads/docs/standards/best/ma/mathbeststandardsfinal.pdf>
- Georgia Department of Education. (2021). *Georgia's K-12 Mathematics Standards*. <https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Pages/GA-K12-Math-Standards.aspx>
- Idaho Department of Education. (2022, January 3). *Idaho Content Standards in Mathematics*. <https://www.sde.idaho.gov/wp-content/uploads/2025/09/Idaho-K-12-State-Standards-for-Mathematics.pdf>
- Mullis, I.V.S, Martin, M.O., & von Davier, M. (Eds.). (2021). *TIMSS 2023 Assessment Frameworks*. Retrieved from Boston College, TIMSS & PIRLS International Study Center website: <https://timssandpirls.bc.edu/timss2023>
- National Assessment Governing Board (2021, March). *Mathematics Framework for the 2026 National Assessment of Educational Progress*. United States Department of Education. <https://www.nagb.gov/content/dam/nagb/en/documents/publications/frameworks/mathematics/2026-math-frameowork/NAEP-2026-Mathematics-Framework-Combined.pdf>
- National Research Council. (2005). *How Students Learn: Mathematics in the Classroom*. Washington, DC: The National Academies Press, 1-23, 217-245. <https://nap.nationalacademies.org/catalog/11101/how-students-learn-mathematics-in-the-classroom>
- North Dakota Department of Public Instruction. (2023, July). *North Dakota Mathematics Content Standards K-12*. <https://www.nd.gov/dpi/districtschools/north-dakota-education-content-standards/mathematics>
- U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2024 Mathematics Assessment. <https://www.nationsreportcard.gov/mathematics/?grade=4>
- Van De Walle, J., Karp, K., & Bay Williams, J. (2020). *Elementary and Middle School Mathematics: Teaching Developmentally*. Pearson
- von Davier, M., Kennedy, A., Reynolds, K., Fishbein, B., Khorramdel, L., Aldrich, C., Bookbinder, A., Bezirhan, U., & Yin, L. (2024). *TIMSS 2023 International Results in*

*Mathematics and Science*. Boston College, TIMSS & PIRLS International Study Center.  
<https://www.iea.nl/studies/iea/timss/timss2023>

- What Works Clearinghouse. (2010). *Developing Effective Fractions Instruction for Kindergarten Through 8th Grade*. <https://ies.ed.gov/ncee/WWC/PracticeGuide/15>

Additionally, participants brought their own knowledge to the process. The writers also thoughtfully considered feedback from the public and mathematics community.