MERCED COUNTY Office of Education
NURTURE • SERVE • LEAD
Steve M. Tietjen, Ed.D.
County Superintendent of Schools

MCOE Mathematics

McSwain

A Family and Community Math Discussion

https://tinyurl.com/McSwainFamily

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Some goals for today…

…in 20 minutes.

- Highlight Partnership between McSwain and MCOE math
- Big shifts in mathematics
- Ways parents can support students
- Math homework

CA Math Framework

2000

2006

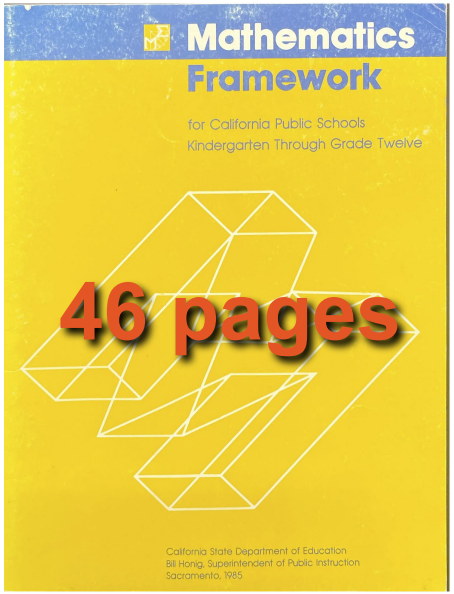
2013

The framework offers guidance for enacting the standards through curriculum and instructional approaches grounded in research and reflecting best practices across the globe. The goal is to ensure equity and excellence in math learning so that all California students become powerful users of mathematics to better understand and positively impact the world—in their careers, in college, and in civic life.

2023 CA Math Framework Summary

View the California Mathematics Framework

How it started



How its going

SBE-Adopted Mathematics Framework – By Chapter

- Chapter 1 Mathematics for All: Purpose, Understanding, and Connection(PDF)
- Chapter 2 Teaching for Equity and Engagement(PDF)
- Chapter 3 Number Sense(PDF)
- Chapter 4 Exploring, Discovering, and Reasoning With and About Mathematics(PDF)
- Chapter 5 Mathematical Foundations for Data Science(PDF)
- Chapter 6 Mathematics: Investigating and Connecting, Transitional Kindergarten through Grade Five(PDF)
- Chapter 7 Mathematics: Investigating and Connecting, Grades Six through Eight(PDF)
- Chapter 8 Mathematics: Investigating and Connecting, High School(PDF)
- Chapter 9: Structuring School Experiences for Equity and Engagement(PDF)
- Mathematics Framework Resources Links
- Long Descriptions of Graphs, Figures and Tables in the Mathematics Framework

1000 pages

A professionally-edited and designed PDF version of the framework will be posted as it is available. The content will not substantively change from the version posted below.

- California Mathematics Framework Summary(DOCX; Updated Jul-2023)
- Chapter 10: Supporting Educators in Offering Equitable and Engaging Mathematics Instruction(DOCX)
- Chapter 11: Technology and Distance Learning in the Teaching of Mathematics(DOCX)
- Chapter 12: Mathematics Assessment in the 21st Century(DOCX)
- Chapter 13: Instructional Materials to Support Equitable and Engaging Learning of the California Common Core State Standards for Mathematics(DOCX)
- Chapter 14: Glossary: Acronyms and Terms(DOCX)
- Appendix A: Key Mathematical Ideas to Promote Student Success in Introductory University Courses in Quantitative Fields(DOCX)
- Appendix B: Works Cited(DOCX)
- Appendix C: Vignettes(DOCX)

CA Math Framework: https://www.cde.ca.gov/ci/ma/cf/

Three dimensions of systemic change

1	2	3
An assets-based approach to instruction	Active student engagement through investigation and connection	Instruction that centers cultural and personal relevance

These three dimensions of systemic change are particularly important for effective mathematics instruction.

Chapter 2, 2023 CA Mathematics Framework

15 Problem

Take the number 15 and break it up into as many pieces as you want.

Now multiply those numbers.

Find a way to break up 15 to create the **GREATEST** product you can.

$8 + 7 = 15$

$8 \times 7 = 56$

$5 + 5 + 5 = 15$

$5 \times 5 \times 5 = 125$

$2 + 5 + 6 + 2 = 15$

$2 \times 5 \times 6 \times 2 = 120$

Ways you can support your student(s)

A substantial body of research asserts that “effective family engagement depends on the close working relationships between teachers and each child’s family (Niebuhr, Arseo, and Simeón 2021) and that these relationships require building capacity among families and educators.

Because mathematics instruction is significantly different from what many parents experienced as students, schools should create opportunities for parents to experience rich, authentic, culturally sustaining mathematical tasks in active-learning ways (including for parents who speak languages other than English).

Ways you can support your student(s)

Always talk about math in positive ways

Know what math should look like and how it should be taught

Have high expectations for your children

Encourage your children to use their own solution methods. Share your "normal" method too!

Make math an everyday part of your family

Notice mathematics in the world