Classroom Mathematics California Program Overview

GRADES

by i-Ready

Grades K-8 Available January 2025

Hear What Authors and Advisors of *Classroom Mathematics California* Have to Say



meant to be repeated, they are effective vehicles for developing new habits. Thus, teachers can lean into instructional routines to more easily develop new teaching practices that align with the California framework."

-Grace Kelemanik



"This program was designed with explicit, intentional supports that make content more accessible and meaningful for culturally and linguistically diverse learners. We want learners to see themselves in the curriculum, helping them strengthen their mathematical identities."

-Mark Ellis



"Students connect with mathematics on a deeper level when they explore its applications in real-world contexts, discovering its relevance and power in everyday life."

–Gladis Kersaint



"Teachers make hundreds of decisions per hour in the classroom, often related to the flow and logistics of a lesson. Instructional routines hold the flow of the lesson steady and shift the focus of teachers' decision making so that they can be responsive to students' thinking in the moment and provide access and support to each and every student."

–Amy Lucenta



"Universal Design for Learning support in *Classroom Mathematics California* serves as a process that can be used to design mathematics learning environments that are both accessible and challenging for all learners. This framework embraces curriculum development that considers the strengths and needs of the broadest possible range of learners."

-Cathery Yeh

Bringing the Mathematics Framework to Life

Classroom Mathematics California is a meticulously crafted curriculum that embodies the Mathematics Framework for California Public Schools: Kindergarten through Grade Twelve (Mathematics Framework). Our commitment to excellence and adherence to the visionary goals of the framework are reflected in every aspect of the program.

Designed to support the implementation of the Mathematics Framework, *Classroom Mathematics California* empowers educators with comprehensive resources and innovative strategies that bring the framework's core principles to life, ensuring students not only grasp mathematics concepts but also develop genuine excitement to learn mathematics.

Our Team of Experts

We have infused our authors' and advisors' expertise throughout *Classroom Mathematics California*, leveraging their deep knowledge and experience to create a robust and effective solution supported with actionable strategies and easy implementation.

Their contributions ensure that *Classroom Mathematics California* is not just theoretically sound but also practical, providing educators with the tools they need to bring the Mathematics Framework to life in their classrooms.

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Perfect Scores on EdReports Scan to learn more!



Build Big Ideas across Lessons and Units

The instructional design in *Classroom Mathematics California* reflects the Mathematics Framework's emphasis on Big Ideas in mathematics as connected and interrelated, rather than as a series of discrete topics.





*California Department of Education. (2023). Chapter 2: Teaching for equity and engagement. *Mathematics Framework*. <u>https://www.cde.ca.gov/ci/ma/cf/documents/mathfwchapter2.docx</u>

The Multiple-Day Lesson Structure

The multiple-day lesson structure provides time for California students to develop deep understanding and make connections that extend across the lessons in a unit to build Big Ideas.

~30 lessons in the year with dedicated time for Big Idea connections!

Big Ideas Develop across the Multiple-Day Lesson Structure

Day 1	Day 2	Day 3	Day 4	Day 5
Explore Session	Develop Sessions One to Three Develop Sessions in Each Lesson			Refine Session
 Prioritize critical prerequisite skills Accelerate access to grade- level content 	 Address the rigor of the California standards Build conceptual understanding through multiple-day Develop sessions Practice new skills and apply new learning 			 Strengthen grade- level practice and differentiation with built-in practice time Reflect and connect with Big Ideas



Inspire Curiosity with Engaging Data Experiences

Develop data literacy through engaging, real-world activities that enable students to apply and strengthen mathematical concepts.

What Can Data-Literate Students Do?

- Interpret data from the world around them
- · Use data to ask and answer questions
- Construct evidence-based arguments
- Determine different approaches to collect data
- Make informed decisions based on data insights

Students work with graphs, charts, maps, and plots to interpret, observe, and critique data.

Every Teacher Is a Data Science Leader!

Classroom Mathematics California provides background on data science, vocabulary, and samples to support teachers in implementing data science in their classrooms.

Promote Data Discourse

Lessons encourage frequent, informal conversations around data and activities using a four-step statistical problem-solving process.





Statistical Problem Solving

Students learn that statistical problem solving is an iterative process that requires revisiting, rethinking, and refining their work as they go.

Seamlessly Connect Mathematics Content to Data Activities

Ample time to focus on data allows teachers to flexibly implement in-depth data activities directly connected to the mathematics of the unit.



Highlight California Standards

Every lesson addresses California standards that are easily identifiable by a color-coded icon.



California Common Core State Standards: Mathematics



English Language Development (ELD) Standards



Environmental Principles and Concepts (EP&Cs)



Fostering Meaningful Relationships between Students and the Environment

- California's EP&Cs emphasize the close relationship between humans and the natural environment.
- EP&Cs problems and tasks appear in every lesson, giving students the opportunity to explore and apply them.
- The Teacher's Guide provides support for guiding student conversations around the EP&Cs.

Empower English Learners

Classroom Mathematics California provides specific resources for English Learners to excel at mathematics.

Connect to Language Development > For English learners, use the Differentiation chart to plan and prepare for specific activities in every session. DIFFERENTIATION | ENGLISH LEARNERS Use with Session 1 Connect It C ELD.PI.4.12a Selecting language resources, ELD.PII.4.6 Connecting ideas Expanding: Speaking/R Support students in understanding math Support students in understanding math Support students in understanding math vocabulary used in Connect It problem 2. vocabulary used in Connect It problem 2. vocabulary used in Connect It problem 2. Prepare three index cards for each of the Prepare three index cards for each of the Prepare three index cards for each of the following terms: factor pair, multiple, prime number, and composite number. Each card will following terms: factor pair, multiple, prime number, and composite number. Each card will following terms: factor pair, multiple, prime number, and composite number. Each card will have a different purpose; term, definition, or have a different purpose; term, definition, or have a different purpose; term, definition, or example. Read the definitions and have students example. Have students match the cards example. Have partners read the cards and add add the terms to a word bank. Then shuffle and them to a word bank. Ask partners to shuffle the independently, then check their answers with a display the cards. Support partners as they read, then match terms with the definitions and cards and match the terms with corresponding definitions and examples. , partner. Next, invite students to choose two or more examples. Have students reshuffle to practice Invite students to combine ideas from two or cards and combine the ideas into one connected Then have them define the terms using the more of the cards into one connected sentence. sentence. For example, a student might say: 21 connecting word because. Provide: For example, a student might say: 3 is a prime is not a prime number because it is a multiple of A _____ is _____ because ____ number because it only has one factor pair. 1, 3, 7, and 21. An example of _____ is _____ because

Encourage Home Language

The **Cognate Support** routine at the start of each unit encourages English Learners to use their first language to make associations to academic words.

Cognate Support

• Ask students if any of the academic words look or sound similar to a word in their first language. Have students circle those words in their books.

Connect to Language

Differentiation to Support

• Every session includes a support

continuum of English proficiency

levels, focused on California ELD

Differentiation speaks to specific

guidance for specific activities.

lesson content and provides

Development:

Standards.

English Learners

- Check to see if the words students have selected are cognates.
- Explain to students that words in two languages that share the same or similar meaning, spelling, and pronunciation are called cognates.
- Write the cognates and have students copy them in their book next to the academic words.
- Say each of the cognates aloud or ask a native-speaker volunteer to model pronunciation and have students repeat.

DEVELOP ACADEMIC LANGUAGE –

WHY? Support students as they build on ideas they agree with during discussion.

HOW? Explain that one way to add to, or build on an idea you agree with is to give another example that shows that the idea makes sense. Model with a volunteer, using sentence frames:

- I also think _____
- Another way to think about it is

Highlight and recognize when students add on to their partner's idea during discussion.

👧 ELD.PI.4.1, ELD.PI.4.11a

Develop Academic Language

- **Develop Academic Language** for all students at the word, sentence, or discourse level.
- Focus includes multiple-meaning words, affixes, word families, irregular verbs, unpacking and constructing complex sentences, and conversation tips.



Universal Design for Learning (UDL): Ensuring Classroom Equity

Classroom Mathematics California embraces the UDL process and principles to proactively remove barriers to learning and develop learner agency.

Equitable Pedagogy with Multiple Means of Engagement, Representation, Action, and Expression

- The Try–Discuss–Connect instructional framework affirms multiple ways of approaching and solving mathematics problems.
- Multimodal and hands-on learning with real and digital manipulatives and math tools
- Encourage discourse through partner and whole class discussions.
- Embedded and interactive language supports
- Accessible learning materials

Say It Another Way

Why: This routine helps students paraphrase a word problem or text so they know if they have understood it. It provides an opportunity to self-correct or to ask for clarification and ensures that the class hears the problem or story more than once and in more than one way.

How: Students read or listen to a word problem read aloud.

- Have one student paraphrase the text. Students who are listening show thumbs up/down to indicate whether the paraphrase is complete and accurate.
- Invite students who show thumbs down to explain what is inaccurate or missing in the paraphrase they heard. The original speaker then revises their paraphrase.

Language Routines

- Language Routines, which help students learn the academic language of mathematics, support students in understanding problems.
- Routines are flexible and can be switched out as desired.





Celebrate the Student

Problem contexts, authentic activities, and images with diverse cultural representations make mathematics relevant and culturally sustaining to California students as they see themselves in the content.



Protocols for Engagement

Validate children's cultural behaviors and values using these affirming strategies.

Suggested Protocol	Where in Lesson	Validates
Call and Response Call to children and have them respond, "I say 'One, two!' You say 'Eyes on you!'"	Any transition to Whole Class Discussion	group identity connectedness
Somebody Who Use a random identifier (for example, plays soccer) and invite those children to share an idea.	Any Whole Class Discussion or Reflect Discussion	socio-centricspontaneity
Silent Partner Children find a partner without speaking, using gestures and eye contact.	Any transition to Partner Discussion	 social interaction non-verbal expression

Protocols for Engagement

Use varied and flexible cultural communication modes to structure activities that encourage all students to participate.



Remove Barriers to Learning

Universal supports, such as manipulatives and digital accessibility features, the Student Bookshelf, and Interactive Practice, ensure all students can fully and effectively engage with the content.

UDL Implementation Support

Classroom Mathematics California provides resources to help teachers confidently integrate UDL-aligned practices into their planning, teaching, and classroom environment.



Classroom Mathematics California

Classroom Mathematics California is rooted in a history of success. It is built on the foundation of *i-Ready Classroom Mathematics* ©2024 Edition, which earned **perfect scores** on EdReports. This history, combined with capturing the vision of the Mathematics Framework, ensures high-quality instructional materials for California students.



Learn More at <u>ClassroomMathematicsCalifornia.com</u>

Curriculum Associates