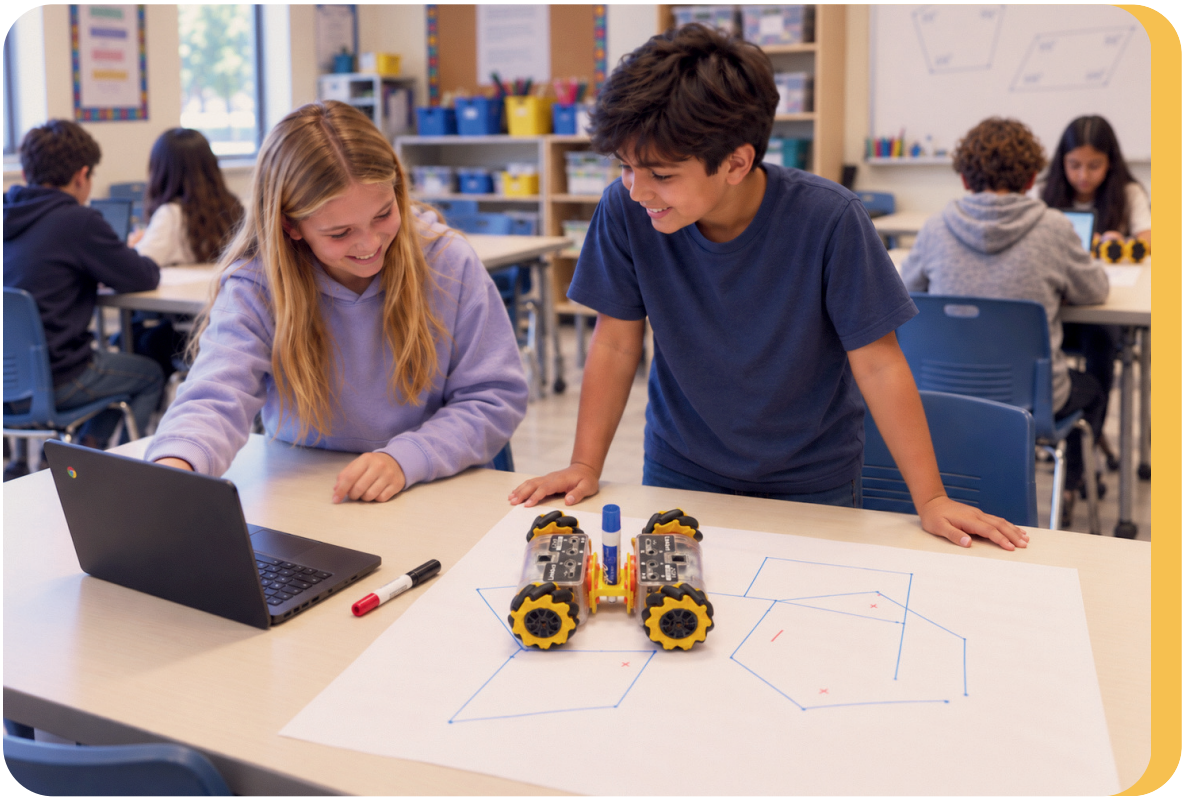
Barobo

RoboBlocky

RoboBlocky Math™

Making math engaging, meaningful, and relevant for every student

RoboBlocky Math™ brings the **Learning Math with Robotics™** philosophy to life by integrating with coding, manipulatives, and robotics. It strengthens conceptual understanding, procedural fluency, math reasoning, and real-world problem-solving through coherent learning experiences from TK–12.



RoboBlocky Math K–8, Algebra 1, and Mathematics I were approved for adoption by the California State Board of Education in 2025.

APPROVED

Four Guiding Principles for Learning Math with Robotics™

Real-World Math

- Hands-on math exploration
- Model math with coding & robotics
- Real-world contexts

Student Agency

- Multiple representations
- Open-ended tasks and projects
- Ownership of learning

Intentional Integration

- Integrate math with coding & robotics
- Integrate math with STEAM, CS, engineering design, reading, and writing

TK–12 Coherence

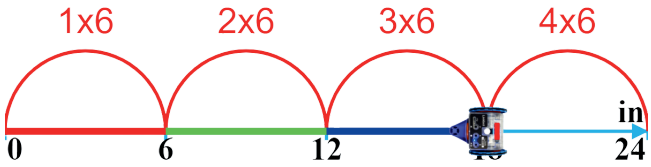
- One robot and platform
- Coherent learning progression
- Classroom and expanded learning

Flexible TK–12 Mathematics Curriculum

Core and Supplemental | **Intervention and Enrichment** | **Accelerated and Highly Accelerated**

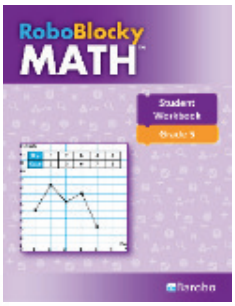
Engaging Mathematical Learning Experiences

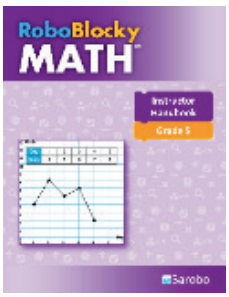
Each lesson includes Warm-Up, Presentation, Examples, and Student Talk. Across lessons and units, students engage in:



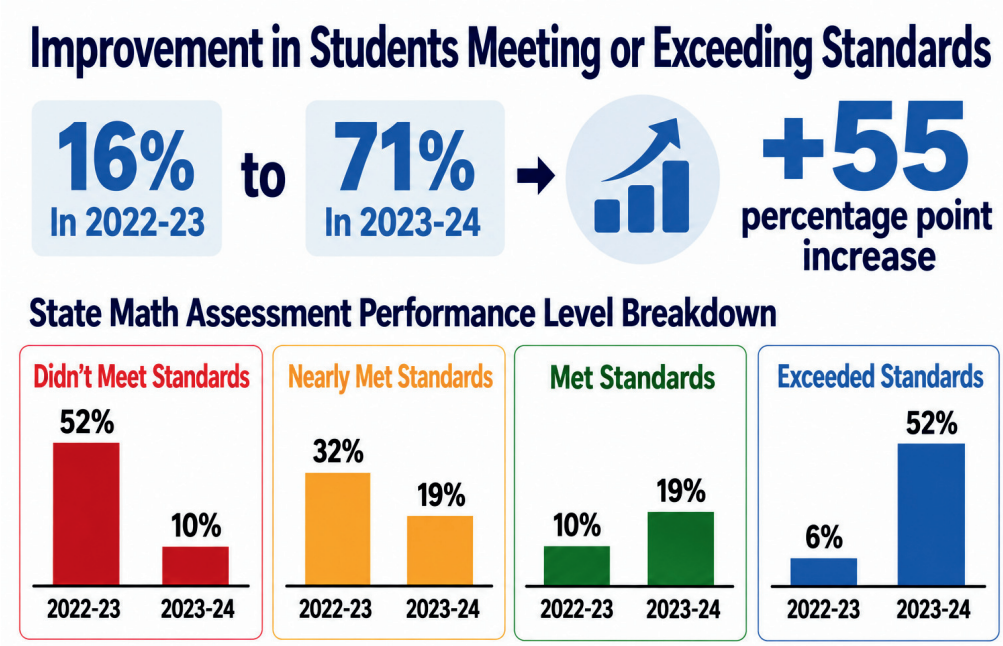
Students connect numerical, graphical, symbolic, and physical representations of mathematics.

- RoboBlocky Explorations with thinking-classroom-style problems and discussions
- Write to Explain activities
- Big Idea Tasks and Projects that connect mathematical concepts
- Mathematical modeling with manipulatives, coding, and robotics
- Unit-embedded RoboPlay™ Adventures and Challenges





A Mathematics Success Story



In one documented district implementation, the percentage of students meeting or exceeding state mathematics standards increased from **16%** in Grade 5 to **71%** in Grade 6 in one year, a **55-percentage-point** increase.

Comprehensive TK–12 Instructional Resources

- Designed for mathematics teachers, with no prior coding or robotics experience required.
- Student Workbooks (in English and Spanish) and Instructor Handbooks work together from TK through Grade 12.
- Multilingual digital resources.

Explore RoboBlocky Math™

One Robot. One Platform. Unlimited TK–12 Learning Opportunities.

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