

Investing for Impact



EMPOWERING CHILDREN THROUGH MATH



Students working together at summer . Photo courtesy of Katherine Wheatley, Cambridge Day.

Our Work

Placing equity at the heart of our work for children and making the investment in math & problem-solving enrichment builds the foundation they will need to pursue careers in STEM. The long-term impact is a solid career path with a wealth of opportunities. Unfortunately, all too often quality math enrichment is something only wealthy families can afford.

At Cambridge Math Circle, we make our classes accessible to all through free and reduced tuition programs, and we start the work early -- in elementary and middle schools -- so kids have the time to learn all the fundamentals they'll need for long-term success in math.

Our approach is unique: it's math through collaboration and play, and teaches children to be comfortable with not immediately knowing the answer to a question. We give them tools and strategies to break problems down into solvable pieces, and to be able to stay with a problem until it's solved. These are skills that will serve them throughout their lives.

As children work through our programs, they're given more challenging work, often working up to complex problems used during interview processes. When a child realizes they just solved a problem that stump even the 'smartest' adults, they are thrilled! More importantly, they discover their own math potential!

This is our goal for every student.

Nataliya Yufa

Co-Founder & Executive Director

Our Math Philosophy

For many people math is a four-letter word; conjuring feelings of confusion, overwhelm, boredom, and anxiety. The reality is that math is a field of systems, numbers, shapes, and relationships that help explain everything around us. Math should be a subject that inspires wonder and creativity.

Sometimes, math is presented in a way that focuses on rote memorization, introduces topics in isolation, and leads kids to think 'Why am I learning this?'

At Cambridge Math Circle, we prioritize the fun, beauty, and wonder of math, and create learning environments that emphasize collaboration, participation, and the exploration of different ways to solve a problem. Our approach builds problem-solving resiliency in a playful atmosphere. The result is that kids develop math-positive feelings, and discover their true potential.

For kids who are already math-confident, we also provide challenging work that pushes them to think dynamically.

We also work with our Cambridge-based community to bring in speakers for STEM Mentor Days. Mentors help connect our students to why and how math is needed to do many fascinating jobs, like building underwater robots or exploring black holes.

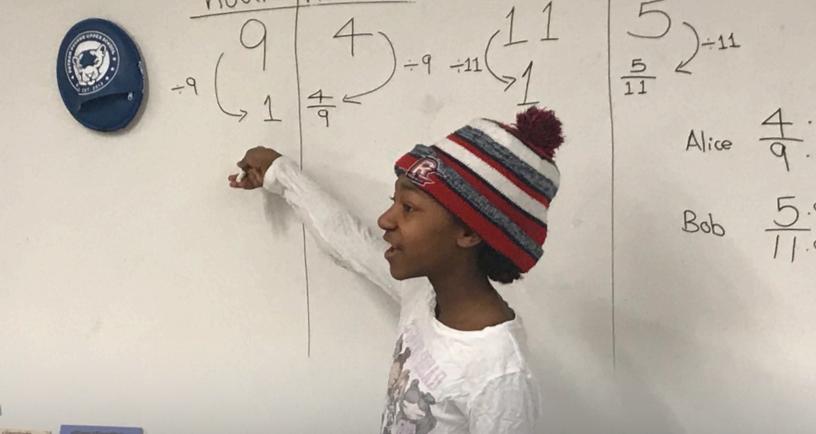
Most importantly, we believe all children should have access to rigorous, high-quality math enrichment. Meaning we actively work within the community to encourage girls, children of color, and children from low-income families to participate.

"The math circle creates a fun environment while teaching complex concepts of math. It's my daughter's favorite weekend activity..."

- Parent of a 2nd-grader at the MLK School, Cambridge



Students bringing their math competition work to the judges.



Programs at a Glance

	GRADES SERVED	TOTAL UNIQUE STUDENTS	TOTAL STUDENT HOURS	% FREE OR REDUCED TUITION	PROGRAM LOCATION
Preparatory Math (using BA/AoPS)	2-8	141	4,230	48%	on-line
Math Circle at Harvard	1-8	231	6,930	57 %	Harvard University
Summer Program	1-8	123	4,900	54%	Harvard + MIT
After School Clubs	1-8	45	1,350	100%	public schools
Lunch Games	4-8	435	3,915	100%	public schools
Math Festival	all	200	300	100%	1 host public school
Clubs Lunch Games	4-8	435	3,915	100%	public schools 1 host

TOTAL 1,175 21,625

All details above are for the 2023-2024 school year.





CMC AT **HARVARD**

GRADES 1-8

CMC's flagship classes, meeting once a week for an hour, and held on the Harvard University us. Class environ- ment facilitates inclusion and collaboration, and the focus is on challenging students at all levels.

Content: logic puzzles, word problems, and math games

Cost: Sliding scale tuition and scholarships

CMC PREPARATORY MATH

GRADES 2-8

Our online-only CMC Preparatory Math classes combine the Beast Academy and Art of Problem Solving curricula with CMC's proven teaching approach. Classes teach topics students traditionally learn in school, but at a deeper level, and with the support of CMC's math instructors.

Content: Beast Academy/AoPS problem sets Cost: Sliding scale tuition and scholarships



AFTER-SCHOOL **CLUBS**

GRADES 1-8

We bring our CMC content to public schools as an afterschool club offering. Content is specifically curated to match the aptitudes within the club to ensure everyone has fun and learns.

Content: logic puzzles, word problems, and math games Cost: FREE to all



LUNCH **GAMES**

GRADES 4-8

Developed specifically for lunch time as another approachable, fun way to engage public school children in math. Games and challenges are selected to be fast-paced, colorful, fun, and to use different types of materials.

Content: card games, strategy games, building challenges,

puzzles

Cost: FREE to all





SUMMER PROGRAM

GRADES 1-8

combines the best of our CMC flagship program, with the outdoor fun and field trips of day . Every week has a theme and recent themes included: coding your name in music, origami and architecture, fractals, number theory, and secret codes. We also bring in visiting teachers, who are specialists in their fields.

Content: logic puzzles, word problems, and projects aligned

with the weekly theme

Cost: Sliding scale tuition and scholarships



MATH FESTIVAL

OPEN TO ALL

Held on MLK Day, the annual Math Festival is the chance for the entire community (students, parents, and siblings alike) to come 'play math' with CMC. 15-20 activity stations are setup, and families can work through the activities together.

Content: origami, logic puzzles and games, building

challenges

Cost: FREE to all

"It wasn't just the best math ever, it was the best THING ever!"

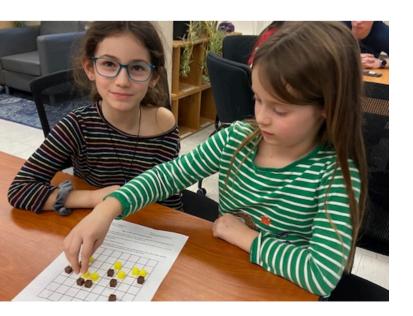
-5th grader, CMC Summer Program participant

Invest in the Future of STEM: Support Cambridge Math Circle

One of the most critical barriers to STEM careers for girls, children of color, and low-income children is MATH. These children face greater math anxiety, limited access to high-quality math enrichment, and a lack of role models in STEM that reflect their own backgrounds. These challenges significantly contribute to their under-representation in STEM fields.

Cambridge Math Circle (CMC) is dedicated to breaking these barriers. We offer immersive math and problem-solving experiences that are both fun and challenging, designed to build a strong sense of math confidence in every student, regardless of their ability to pay.

Since our inception in 2018, CMC has proudly served a student population that is 75% from backgrounds underrepresented in STEM.



Your Investment Matters

Equitable Access to Math Enrichment:

By investing in CMC, you are providing critical math enrichment to students in grades K-8, a

math enrichment to students in grades K-8, a foundational period for developing STEM skills.

Pathway to STEM Careers:

Early math confidence and competence are direct pathways to pursuing STEM majors in college and thriving in STEM careers.

Breaking the Cycle of Poverty: For many children, a strong foundation in math is not just a gateway to STEM careers but also a crucial step out of poverty.

Your Support Will:

- **Expand our Reach:** Help us bring highquality math enrichment to more children from underrepresented backgrounds.
- Build Confidence and Competence:
 Empower ALL students with the math skills
 and confidence they need to succeed in
 future STEM endeavors.

Support Cambridge Math Circle.

Together, we can pave the way for the next generation of STEM leaders and innovators.