



 Caltech Y

Rise Program Report

2022-23

Introduction

2022-23 was a great year for the Rise Program. Thanks to generous funding from Medtronic Foundation and other donors, the Rise Program achieved numerous milestones:



Expanded the program to serve both younger and older students.



Provided over **4,200 hours** of one-on-one math and science tutoring and mentoring.



Offered **free mental health** counseling and workshops to all Rise Program students and alumni.



Awarded **11 college scholarships**.



Held the first-ever **Rise Program awards banquet** honoring the many student achievements.



Launched a **new summer program** for 3rd – 6th graders, the Summer STEAM Experience (SSE).



Relaunched the Y-Tutor Program offering **online STEM tutoring for college students**, including Pasadena City College’s Mathematics, Engineering, Science Achievement (MESA) Program, which serves first-generation, low-income students.

The Year in Numbers



Total Tutees



Total Tutors



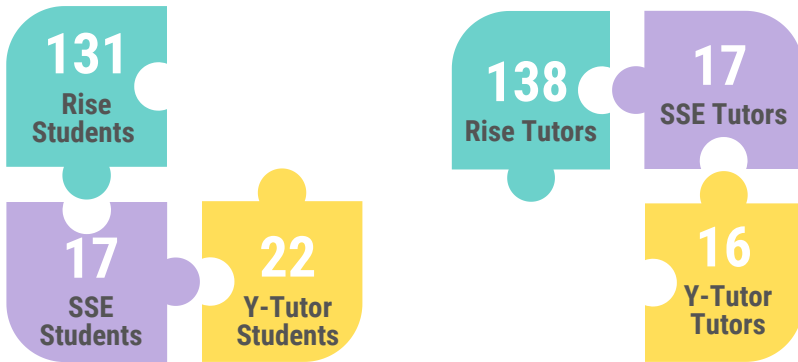
65%

of students increased their math grade by the end of the 2nd semester



44%

of students increased their science grade by the end of the 2nd semester

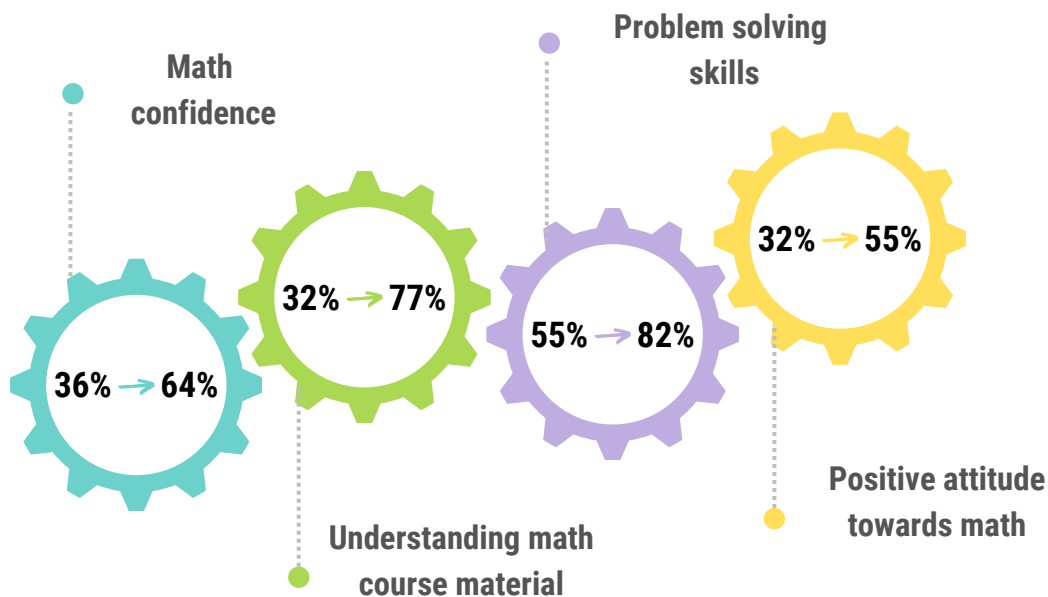


Rise Program: Academic tutoring for 8th-12th grade students struggling in math and/or science.

Y-Tutor Program: Provides online STEM tutoring for college students.

SSE: STEM summer program for 3rd – 6th graders.

According to pre & post surveys, students showed gains in the following areas:



Rise Service Awards

The Rise Program proudly celebrated the outstanding contributions of three exceptional tutors this year: Emile Oshima, Kyle Virgil, and Zoila Jurado Quiroga. These remarkable individuals devoted over 5 years of their time to the Rise Program, a testament to their unwavering commitment and dedication to the Rise Program.

The profound impact of their mentorship and guidance was reflected in the heartfelt words shared by their students.



Emile Oshima
Postdoctoral Scholar
Aerospace

“Emile is the smartest person I’ve ever met and a really **good teacher**.”
 – **James Okon (Emile’s tutee of 2 years)**





Kyle Virgil
Caltech PhD Student, Chemistry

“Kyle is a remarkable educator and mentor who has left an indelible mark on my life. He has not only transformed my understanding of math and science but has also **nurtured my self-confidence, resilience, and love for learning**. I am forever grateful for the privilege of having the same tutor each year, as our enduring relationship has provided me with invaluable support and continuity. Kyle, thank you for being more than a tutor, thank you for being a guiding light that has illuminated my path to success.” – **Eloheem Mahone**
(*Kyle’s tutee for 6 years*)



Zoila Jurado Quiroga
Caltech PhD Student, Mechanical Engineering

“I have known Zoila for the better part of my high school experience, as my mentor and tutor until the day I graduated high school. Zoila always encouraged me to push myself even if it was something completely out of my comfort zone, and because of this advice, I have thrived. Zoila has been much more than a mentor, she has been a great friend and support system for me. She is a **kindhearted, honest, and brilliant person**. I have learned so much from Zoila and I hope our friendship continues for years to come.” – **Alondra Flores**
(*Zoila’s tutee for 1 year*)

Rise Scholarships

The Rise Program awarded a record 11 college scholarships this year. For the first time ever, the Rise Program was able to award scholarships to current college students to assist them in continuing their education. Nine scholarships were awarded to high school seniors entering college in the fall, and two were awarded to former Rise high school students to support them in their college journey.

The Rise Program celebrated all these wonderful students at the first-ever Rise Program awards banquet. It was a memorable evening with heartfelt speeches from students, tutors, and parents. The student awardees are highlighted in the following pages. Congratulations!



“Joining the Rise Program has had a great impact on my life. Not only have I gained more confidence in my math class, but I’ve also **gained more patience**. When I’m stuck on a problem and getting frustrated, I know I can always look back at the notes I took during tutoring and work through the problem one step at a time. I’m grateful for having the opportunity to receive this extra support and for the people I’ve had help me along the way.”

SOPHIA COVARRUBIAS, PASADENA HIGH SCHOOL ‘23

“During my sophomore year of college, I was taking a college-level computer science class for the first time. My challenge was that I couldn’t understand the new material being taught. I would still get by in the class, but I felt it wasn’t enough. Once I heard that Rise had tutoring services for college students, I decided to take the opportunity immediately. I feel that the Rise program has helped me through my troubling years and has made a **big impact on my life**. Whether it was during my high school or college experience.”

KAMERON HAMILTON, CAL STATE NORTHRIDGE





“My tutor’s enthusiasm made me more driven to take an interest in the true nature of math and science and the **love of learning for the sake of it**. I genuinely looked forward to coming to tutoring every week because Sophie was someone I enjoyed learning, growing, and laughing with and someone who **cared about me for who I am**.”

SOFIA BARRIOS, MARSHALL FUNDAMENTAL ‘23

“When I was struggling in middle school with my math and science assignments, I never thought those would become my favorite subjects. Starting the Rise program was the big turning point. Not only did I learn to love science and math, but I also achieved a lot more through my journey and **gained precious experiences and friends**.”

ENGELS MIANSARYAN, MARSHALL FUNDAMENTAL ‘23



“At the beginning of my senior year, I really struggled to balance my grades and my job. Fortunately, my tutor understood me completely, and she helped me balance everything. I became **more confident in my mathematical abilities**, and my grades started to skyrocket. My tutor had great confidence in me and also encouraged me to have faith in myself.”

MICHELLE ABZUN RIVAS, PASADENA HIGH SCHOOL ‘23

“As a result of my participation in the Rise Program, I do not fear STEM classes. **I do not fear challenges**. I participate more often during lectures because I’m not afraid of being wrong or looking silly; after all, I’m there to learn. We are only confined by the walls we build ourselves.”

HENRY VARGAS, PASADENA CITY COLLEGE





“Rise has created a **sense of community** for me and many other students who may have felt isolated or unsupported otherwise. The program's emphasis on mentorship has helped students feel connected to others who share their goals and challenges and has provided them with a **supportive network** to turn to when they need help or guidance.”

ANGELICA CAAMANO, PASADENA HIGH SCHOOL '23

“Through the Rise program and all the amazing tutors, not only was I able to **improve my abilities in math and science**, but I was able to excel, succeed, and be confident, which later, when arriving at high school, allowed me to have a **different mindset** on these subjects and made me want to challenge myself by taking AP courses. It also allowed me to be able to help others who struggled in the same way.”

BENJAMIN LOPEZ, PASADENA HIGH SCHOOL '23



“I was taking an honors class, and I felt like an imposter. I was afraid to ask questions and pretended I knew what I was doing to feel like I belonged. Rise gave me the opportunity to meet my tutor who had been through my classes during high school and got to hear about their experiences in college. Thanks to Rise, **I have learned that I do belong** in an honors class and AP class and that **it is okay to ask for help.**”

MIA MENDEZ, PASADENA HIGH SCHOOL '23



Summer Steam Experience (SSE)



The Rise Program's latest initiative, the Summer STEAM Experience (SSE), proved to be a resounding success, introducing underrepresented 3rd-6th grade students to the wonders of science, technology, engineering, arts, and math. In collaboration with STEAM:Coders and STEMulate Learning, this program brought these young students to Caltech's campus for three weeks of exploration and learning. Through hands-on activities, engaging curriculum, and exposure to real-world STEM research, the program not only ignited a passion for learning but also planted the seeds for future college aspirations in the hearts of these young students.

It has been such a great experience for my son, and he is really sad it's ending. He has learned so much and all the tutors have left such an amazing impression on him.

Nubia Perez - SSE Parent



The impact of SSE was profound, as evidenced by the students' enthusiastic feedback and emotional connections with their tutors. Parents, like Nubia Perez, expressed immense gratitude for the transformative experience that left a lasting impression on their children. She stated, "It has been such a great experience for my son, and he is really sad it's ending. He has learned so much and all the tutors have left such an amazing impression on him."

Beyond the core curriculum, the students enjoyed making rock salt ice cream, visiting the Caltech turtle pond, 3-D printing their own designs, and fostering new friendships along the way. One of the most invaluable aspects of the program was the exposure to potential STEM careers and research, with visits to Caltech labs spanning Geology, Biology, Chemistry, and Robotics. Through these interactions, they witnessed the possibilities of scientific exploration and research for the betterment of society.

SSE partner, Raymond Ealy of STEAM: Coders, sees the benefit of bringing camps like these to college campuses. "It gets those kids on a college campus for the first time," Ealy says. "They can look around and see what it's like, so we plant that college seed early."

The Rise Program and its partners are immensely grateful to the dedicated tutors and collaborators who made this enriching experience possible and look forward to continuing their mission of empowering the next generation of scientists and innovators.

Our Collaborative Network

Beyond our core program, The Rise Program forms meaningful partnerships with various organizations, all aimed at fostering integration within the local community. Together, we are committed to shaping bright futures.



Every Tuesday and Thursday, Caltech Y tutors journey to the **Muir** campus, providing one-on-one and small-group tutoring sessions.

Yearly, The Rise Program joins forces with the **YWCA** to provide mentorship and tutoring for the TechGYRLS program.



Caltech Y volunteers proudly serve as tutors and instructors, contributing to **STEAM:Coders'** noble mission of introducing one million students to the realms of science, technology, engineering, arts, and math.

Collaborating with **Young Legends** and the Caltech Y, Associated Students of the California Institute of Technology (ASCIT) extends online tutoring and mentorship to youth of color. This year, students and parents visited Caltech's campus for an immersive tour and insights into college life.



The entire 5th grade class of **Suva Elementary** embarked on an adventure to Caltech's campus through the Rise Program. Students enjoyed a range of hands-on activities and engaging science demos from DNA separation to crafting toothbrush robots.

On Tuesdays, Caltech Y volunteers support the **YOP Chill Lounge**, offering guidance in math and other subjects. During the summer, volunteers provide interactive science lessons and demos. Highlights included STEM-focused Chinese brush painting and the exploration of exoplanet discovery.





Thank You

to all of the amazing tutors, students, community partners, and supporters who make the Rise Program possible!



The Caltech Y Rise Tutoring Program is supported by the Roethke Funds, the Tom Apostol Endowment Fund for Math and Science Outreach, Medtronic Foundation, PUSD's African-American Parent Council (AAPC), the Harris-Bacor Family Foundation, and the Caltech Employees Federal Credit Union.