

Before girls opt out of science, this nonprofit steps in

Science Club for Girls offers free, hands-on STEM programs for underrepresented youth.



ABOVE: Benisha "Beni" Marseille, mentor and former member of Science Club for Girls, demonstrates a typical club activity. TOP RIGHT: Marseille proudly stands with an award from the Science Club for Girls. BOTTOM RIGHT: Marseille gazes through a telescope as part of the Science Club for Girls programming.

Sponsored by Alnylam

When Benisha "Beni" Marseille was little, she thought the moon moved with her. "The moon would just always be up there," she remembers. "I would tell my mom, 'I think the moon is following us again.'"

Years later, Marseille learned why it appeared that way — gravity, orbital motion, and the way the moon reflects sunlight as it moves through its phases — through Science Club for Girls, a free afterschool program designed to foster excitement, confidence, and literacy in science, technology, engineering, and mathematics (STEM) for girls and gender-expansive youth from underrepresented communities.

"That blew my mind," Marseille says.

Wednesdays, Science Club days, quickly became her favorite day of the week. Over the next few years, she explored electricity, robotics, density, and more through hands-on, multidisciplinary curricula that sparked and sustained her interest in science.

Today, Marseille is a sophomore at College of the Holy Cross studying computer science with plans to pursue a career in web development.

Seeing what she can be

For Bonnie Bertolaet, executive director of Science Club for Girls, stories like Marseille's illustrate what's at stake when access to STEM comes too late.

"We really exist to break the cycle of exclusion in science, engineering, and technology," Bertolaet says. "Starting at an early age is really critical because by six years old boys and girls have internalized negative stereotypes around who belongs in STEM."

Those early exclusions ripple outward. "When we limit who gets to be involved in STEM, we are really limiting the talent pool that we have available to us and limiting the solutions," says Bertolaet, who earned her Ph.D. in organic chemistry from Harvard University and previously worked in biotech. "Innovation occurs often at the intersection of two communities coming together."

Science Club for Girls operates differently than a typical classroom. The organization serves more than 1,000 students, but clubs are intentionally small — about 10 students supported by one or two junior mentors in high school and two or three adult mentors who study or work in STEM fields. Together, they experiment, test ideas, and work through questions collaboratively.

"It's very focused on the process, not getting the one right answer," Bertolaet says. "Participants in our program know from early on that being a scientist, being a STEM person, is always asking that next question. When something goes differently than you expect, what are the questions you ask? What's your next step?"

That approach resonated with Marseille. "Encouraging that curiosity I think is one of the big things that got me into Science Club and science to begin with," she says.

From participant to role model

When Marseille aged out of the participant program after sixth grade, she didn't want to leave. She returned as a junior mentor in high school, a role designed to build leadership skills and provide support around the college application process. She has continued with Science Club for the past two years as a mentor, along with a summer internship at the organization.

"It's really important for girls, especially from underrepresented communities, to see women who are in these roles. That's why we have all of our mentors study and work in STEM and talk about what they do," Bertolaet says. Mentors not only teach lessons, they model meaningful career paths and show students they can get there, too.

The outcomes of Science Club for Girls are measurable. In a 2024 longitudinal study of alumni conducted in collaboration with the City of Cambridge, 99 percent of participants attended college, with nearly two-thirds majoring in STEM. Even those who pursued other fields reported lasting benefits. About 90 percent of alumni said the program shaped their identity as lifelong science leaders, and 95 percent credit it with building confidence in overcoming academic challenges.

Marseille sees those effects in her own life. She credits Science Club with developing her confidence, communication skills, and persistence — tools she now relies on in college.

Reinforcing the pipeline

That long-term support is made possible in part through partnerships with companies across Massachusetts' life sciences ecosystem, including Cambridge-based Alnylam Pharmaceuticals. The company supports Science Club for Girls through funding, employee mentorship, and widely attended curriculum-packing events that prepare materials for in-person and virtual Science Clubs.

For Alnylam, mentorship is central to how the company approaches community investment and long-term workforce development. "The early exposure of students to STEM allows them to build confidence and allows our employees to support the next generation of innovators," says Arun Skaria, head of corporate responsibility at Alnylam.

That exchange, he adds, is mutually reinforcing. "The energy and curiosity demonstrated by students from Science Club for Girls inspires our employees. ... We believe that by supporting the next generation of STEM professionals we are supporting the talent that will create the medicines of tomorrow."

That engagement is coordinated through

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Bonnie Bertolaet,
Executive Director, Science Club for Girls

ULearn, Alnylam's employee resource network focused on STEM education and community outreach. Launched more than five years ago out of the company's research organization, the ULearn platform connects employees with hands-on volunteer and mentoring opportunities across Massachusetts, including Science Club for Girls.

"How can the next generation pursue opportunities if they don't know what is available

to them?" says Sedna Darkey, co-lead of ULearn at Alnylam. "Through mentoring and meaningful conversations, we are helping students to discover that careers in the life sciences aren't limited to a single path or role — there are multiple gateways shaped by their interests."

That kind of sustained corporate support sends a broader signal to other organizations in the region's biotech sphere. "To have a partner like Alnylam, who's willing in this moment to stand up and say, Science Club for Girls is important, bringing women and girls along in their careers in STEM is important, is deeply meaningful to us," Bertolaet says. "It speaks volumes to the other companies out there to see this is an investment needed to build the future workforce."

Passing confidence on

Now as a mentor herself, Marseille focuses on instilling confidence above all else. She knows the impact may not be immediate. But she's seen it unfold before. "I feel like the older that they get, the more it's going to click with them — like it clicked with me — how important this was," Marseille says. "They're going to be so grateful that they had this confidence building so early on. They'll be able to take on whatever life throws at them."

The moon no longer feels mysterious in the same way it once did. But the curiosity that made Marseille look up and ask why — supported early, reinforced often, and nurtured through mentorship — has never left. ■



Benisha Marseille and another student observe a globe as part of the Science Club for Girls programming.