



**CITYSPROUTS
MIDDLE SCHOOL
PROGRAM**

**REPORT
2018-19**

Highlights

- Youth Leadership Team (YLT) launched
- New Positive Youth Behavior model based on Restorative Practice Framework
- Summer curriculum enriched with new STEM activities
- CitySprouts' family engagement practices featured by Cambridge Agenda for Children

"Walking through the garden was like walking into a new world. People who are like me- who don't usually like to be outside- were able to see the beauty of the garden and the vegetables growing in the garden. It [will be] a transformation for them, as it was for me." Gloria, age 14 Boston

About CitySprouts Middle School Program

The CitySprouts mission is to cultivate wonder for all children with hands-on learning through urban gardens. Our innovative Middle School Program (MSP) creates a community for middle school-aged youth to learn about their natural environment, engage in science and engineering through ecosystems and food systems, and explore their emerging identity as young adults. Our tuition-free programs take place in and around public school gardens in the neighborhood where young people live, learn and play. Our garden-based curriculum is based on youth-driven exploration and projects that gives young people the skills they need to think critically and compassionately about the world.

CitySprouts has three MSP opportunities for youth. All are lead by our full-time, year-round garden educators.

- The summer program is a 6 week internship for middle school youth based at partner schools in Cambridge and Boston. Youth explore science, technology, engineering and math (STEM) through structured activities, field trips, and guest expert visits. Youth are introduced to how science and systems intersect with social justice in their communities. They tend the school garden and harvest and cook a meal from it nearly every day of the program. The summer program is also a well-scaffolded introduction to the workforce for young people moving from childhood to teen-hood: all youth who complete the 6-week internship are given \$150 in recognition of what they've learned about stewardship and to reflect the value of their community contribution.
- The after school program is based in our partner middle schools and focuses on an environmental topic as it relates to young people's experience. The 15 week curriculum builds science/engineering and social emotional skills through experiences in the garden, classroom and community. As culinary engineers, for example, youth learn about food systems and the science of food as they explore flavor, emulsions, fermentation and yeasts. In our vertical farming module, youth design and build mobile growing structures and learn more about the positive impact plants have on an urban environment.
- CitySprouts' Youth Leadership Team (YLT) is a year-round club for youth who have completed other CitySprouts programs and want to continue building their experience as environmental leaders. YLT youth meet throughout the year to work on community projects, go on field trips and speak out on environmental justice issues. YLT fill stipended youth assistant positions in the summer and afterschool programs.

Our MSP Partners

In School Year 2018-19, CitySprouts MSP programs operated in the following schools (note that not all programs operated in all schools):

- Cambridge Public Schools: 4 Upper Schools (grades 6-8)
- Boston Public Schools: Orchard Gardens Pilot School, Higginson Lewis K-8 and McKay K-8

CitySprouts is a charter member of the **BoSTEM Initiative** in Boston. In 2016 our Middle School Program was selected to be part of the BoSTEM 5-year Education, Innovation & Research (EIR) project to improve young people's STEM learning and social-emotional health. Facilitated jointly by United Way and Boston After School & Beyond, the five-year BoSTEM EIR grant provides CitySprouts with a combination of funding and resources to improve young people's STEM skills and social emotional skills. Membership in BoSTEM allows CitySprouts to report out on much broader set of STEM and social emotional outcomes than we had previously had capacity to do. Critically, it also provides a context for CitySprouts' impact by tracking the same outcomes of all 12 youth programs in the BoSTEM cohort. *Our cumulative MSP evaluation results equals or exceeds that of our BoSTEM pilot cohort, confirming that CitySprouts offers an engaging and impactful youth experience at half the cost of our peers.*

The Agenda for Children/Middle School Network (MSN) in Cambridge supports and coordinates the city's out-of-school time (OST) programs serving middle school-aged youth and their families. CitySprouts has been a member of MSN for many years and has built on collaboration opportunities offered to work with

other youth service programs in Cambridge. Since 2016, CitySprouts has assumed a leadership role within MSN by serving on the Steering Committee. CitySprouts' family engagement was featured in an [MSN video series on best practices](#).

CitySprouts is a charter community partner in **Boston Public Schools Opportunity Portfolio**, signifying that it is vetted as a high quality program that aligns with Boston Public School District goals (see [partnerbps.org](#)).

Progress Toward Goals:

We envision a future where all young people have rich and accessible learning experiences grounded in the natural environment where they live. Four strategies drove our efforts to strengthen youth access and depth of experience in CitySprouts' MSP this year.

1. The first is to build year-round opportunities for middle school-aged youth to develop leadership and employment skills.
2. The second is to ensure our curriculum strengthens science and engineering skill-building through an environmental lens, and our educator staff is supported through training.
3. The third is to develop protocol and practices for strong and active relationships with families.
4. The fourth is to strategically build on our partnerships with businesses, the nonprofit community and the cities of Cambridge and Boston to build out a sustainable model for youth leadership and employment.

New Youth Leadership Opportunities

The Youth Leadership Team (YLT) launched this fall in Cambridge. Since their first meeting in October, our inaugural YLT undertook and completed a number of community projects: In November, the YLT shared their views on climate change, just food systems and plant-based diets as the featured guests of Porter Square Books' November *Be the Change* event. In Feb - March, they worked with chefs at Commonwealth Restaurant in Kendall Square to test and develop a new recipe for the CitySprouts' summer program cookbook; their new recipe was featured at CitySprouts' annual fundraising and outreach event in the spring (the event was catered by Commonwealth). In May, the YLT assisted the Margaret Fuller House in Central Square with installing and planting new garden beds for their youth programs. Youth from our Boston summer program joined the Cambridge YLT at Dig It, CitySprouts' spring benefit, to share some of their experiences with family, friends and other supporters.

This summer, we implemented youth leader positions in our summer program for the first time. Each site had 1 or 2 program assistants who participated in the summer program but with added responsibilities such as leading games, demonstrating gardening or cooking skills, and helping the adult leaders set up activities. Youth leaders in the summer program received a higher stipend to reflect their new responsibilities.

We are also exploring partnerships to build workforce opportunities at CitySprouts for older youth. In fall 2018, CitySprouts was selected as an inaugural site for the City of Cambridge's Next Up program. Michael Naughton McWilliams, a recent graduate from Cambridge Rindge & Latin High School, worked with CitySprouts for 12 weeks this fall in an internship paid by the City of Cambridge.

Our goal for FY2020 is to 1) increase youth enrollment in all after school programming, 2) provide deeper learning opportunities through an increase in program hours and 3) build a meaningful 'ladder' of

opportunities for youth growth & leadership within CitySprouts programming.

New Positive Youth Behavior Model Based on Restorative Practice Framework

This year CitySprouts developed a new youth behavior model based on the Restorative Practice framework. This model provides structure for staff in building trusting relationships with youth and their families and to support staff in guiding youth through conflict when it arises. “Restorative Practices, sometimes referred to as Restorative Justice, is a framework for building community and for responding to challenging behavior through authentic dialogue.”¹ The Restorative Practice-inspired tools that CitySprouts is developing for our program this year include new guidelines around setting intention with youth at the start of the program and a rubric for responding to conflict as it arises.

This project is grounded in Restorative Practice training our staff participated in this school year led by Boston AfterSchool & Beyond’s SEL Circle Initiative. Additionally, CitySprouts staff participated in trainings on engaging families as partners and on working with trauma-sensitive students. CitySprouts full staff read and discussed Zaretta Hammond’s Culturally Responsive Teaching and the Brain.²

Our goal for FY2020 is to incorporate youth, family and staff feedback from our pilot this summer to build out a positive youth development model for all of CitySprouts’ programming.

STEM Strengthened in Summer Curriculum

CitySprouts has now gathered several years of evaluation data from our out-of-school programming. Cumulative findings indicate that our MSP curriculum excels in building healthy relationship skills, engaging youth in STEM, and in making science feel relevant to youth. One area we had targeted for improvement, however, was strengthening our curriculum’s STEM content. Toward this goal, we added a new module to our after school program in fall 2018 on Vertical Gardens. Our newest module is adapted from the Museum of Science Engineering is Everywhere© curriculum. Our adaptation broadens the environmental focus of the original module, allows for more youth choice and exploration; and aligns with our partner schools’ after school schedule. We also created two new STEM lessons for our 2019 summer program: designing and building solar ovens, and measuring urban heat in the schoolyard and garden. We are also piloting a new summer program element– *garden guests*– to help youth think about careers in environmental fields such as biology, urban landscape design and sustainable food systems. Lastly, we reviewed and revised our summer program cookbook to better scaffold cooking skills and added new recipes (including the new Garden Quesadilla recipe developed by the YLT). We continue to develop our summer curriculum and are on track to integrate with our school year club curriculum next year, resulting in a single Middle School Program curriculum with distinct summer and school year modules.

Our goal for FY2020 is to build on the new initiatives launched this year: specifically, to incorporate evaluation data and feedback from this year to continue to strengthen curriculum and staff training in the year to come.

Family Engagement

¹ Nneka A. Bennett. Kickboardforschools.com

² Hammond, Z., & Jackson, Y. (2015). Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students.

One of our organization's long-term goals is to increase families' engagement in their children's garden-based learning. We are approaching this goal by creating more opportunities for families to spend time in the school garden with their children, and educating families about the impact garden-based learning can have on children. This year, the Agenda for Children [featured CitySprouts in their series](#) on effective family partnership strategies. In our 2019 summer program, we added an additional event for families to gather in the garden (a before-program meet-and-greet for families & caregivers) as well as new staff guidelines for communicating with families at home.

Our goal for FY2020 is to continue to create more opportunities for families to shape our program through focus groups, surveys and follow-up conversations.

Re-structured Staffing Model

This year CitySprouts finally achieved a long-standing goal to make our garden educator position full-time and year-round. Our garden educators now work through the winter. An important outcome of this change is that our staff of 7 Garden Educators are now leading all of our after school clubs in addition to the summer program (after school club instruction had previously been led by AmeriCorp service members). We have used this transition to engage more deeply in staff professional development around middle school themes such as culturally responsive teaching and implementing stronger positive youth behavior development systems based on Restorative Practices.

Our goal in 2020 is to make the MS manager a full-time position (currently .5FTE).

Challenges and how we addressed them

CitySprouts MSP made strides in remarkable ways this year. Our evaluation feedback equaled or exceeded that of our BoSTEM pilot cohort, confirming that CitySprouts offers an engaging and impactful youth experience at half the cost of our peers. We finally achieved a staff reorganization we had long envisioned, opening the way for significant staff training and curriculum development previously beyond our reach.

Two challenges surfaced in the MSP this year. The first challenge was in youth recruitment. While our summer program had a long wait-list for every site (including our Dudley Square site in Boston), our after school and YLT attracted fewer youth than we anticipated and fewer numbers overall compared to last year. We have been reaching out to school partners and families to learn why. We learned that the biggest reason for low participation in our YLT was scheduling difficulties for families: two meetings per month was too little given their need to have their children in programming daily. Our after school program has relied on schools' out-of-school time structures, and each of our schools experienced difficulty in after school participation. While it is some consolation to know that schools were also experiencing low after school enrollment overall, we are confident there are actions we can take to significantly improve program participation in the coming year. We are developing a plan to increase the number of YLT times to weekly and to include some weekends and school vacation weeks. We will reduce the number of our after school clubs and focus instead on making them year-round and more frequent.

A second challenge this year was sustaining our second summer program site at McKay K-8 in East Boston. Each winter, CitySprouts begins recruitment to fill 12 college intern positions to assist our garden educators in leading the summer program. This year we did not recruit the number of college interns we needed to staff 6 sites; at the same time, the McKay K-8 made the decision to not renew its CitySprouts partnership in

2019-20 due to their school funding decrease. We therefore decided to operate only 5 sites this summer with the expectation that we will have all resources needed to operate 6 summer sites in Boston in 2020.

EVALUATION FINDINGS

Who We Serve

More than 65% of the youth in our tuition-free summer program are economically disadvantaged; 27% are English Language Learners; and 23% are children with identified special learning needs.

- 45 youth participated in CitySprouts after school programs since October
- 75 youth are enrolled for our summer program at 5 sites, with a wait list for every site

STEM and Social Emotional Learning Outcomes

Because of CitySprouts' participation in BoSTEM, we use a set of evaluation tools that are also used by the 11 other out-of-school time middle school youth programs in the BoSTEM grant pilot cohort. Thompson Island, Citizen Schools and Sociedad Latina are 3 of our cohort peers that, like CitySprouts, provide high quality STEM programming for middle school youth. *The median budget of our BoSTEM pilot cohort is twice CitySprouts' budget; it is therefore significant that youth in our program are meeting or exceeding the combined outcomes of the cohort.* The following results are cumulative since summer 2016 unless where otherwise noted.

Youth Skills (SAYO-T)

CitySprouts shows the highest positive change in the areas of relationship skills (both with adults and peers), perseverance, and communication. The student skills are measured through an instructor pre- and post-survey and are communication skills, critical thinking, math, language literacy; and perseverance, self-regulation, relationship skills with peers and with adults.

Youth STEM Interest (CI)

CitySprouts' scores mirrored our peer organizations in BoSTEM with youth showing the highest score in STEM engagement and the lowest score in STEM career knowledge. Youths' STEM skills, captured through youth pre- and post-surveys, are STEM career interest, STEM career knowledge, STEM engagement, and STEM interest outside of school.

STEM Program Quality (DoS observations)

In our most recent observation this spring, **CitySprouts achieved perfect scores in 4 areas (relating to our STEM curriculum and instruction) and raised our score in 6 of the 8 other indicators.** STEM program quality is captured through trained outside observers. The focus areas within STEM program quality relate to the curriculum and how it is presented, youth engagement with curriculum activities, STEM knowledge and practices, and youth development in STEM (e.g. how relevant activities are to young people's lives, opportunities for youth autonomy and trusting relationships between staff and youth). We have been focusing on improving the STEM learning environment in our program.

Program Quality (APT, SAYO-Y)

CitySprouts out-performs the BoSTEM cohort in most categories and excels in creating a healthy social emotional environment and staff positively guiding youth behavior. General program quality includes evidence-based indicators of environments where children learn effectively. Indicators are grouped by program organization & structure, supportive environment, and youth engagement in activities and learning. Data is collected from outside observers and from youth surveys.

MSP Projects for 2020

- Grow our Youth Leadership Teams in Boston and Cambridge. Our goal: 20 youth engaged in our youth-driven, year-round environmental leadership program with paid work opportunities
- Extend our afterschool club program to full school year and build robust and sustainable club participation. Our goal: 30 youth participating in one of two after school clubs (one in Boston and one in Cambridge); prioritize access for less-resourced youth who have fewer out-of-school time learning opportunities
- Build out our Positive Youth Behavior model based on Restorative Practice Framework
- Develop and publish a comprehensive out-of-school time curriculum (including both summer and after school models) that gets youth connected to nature in urban environments, builds STEM skills, and introduces cooking and food growing skills for 11-14 year olds. Curriculum components are activities grounded in the garden and community; a youth development structure based on Restorative Practice model; cookbook and cooking skills for emerging teens

Note: CitySprouts utilizes a suite of validated evaluation tools to measure the quality of the learning environment of our Middle School Program. Dimensions of Success (DoS)³ is an observation tool designed to improve the STEM assessment capacity of out-of-school time programming. The Common Instrument is a survey that measures changes in youths' STEM interest and STEM career knowledge. The Assessment of Program Practices Tool (APT)⁴ is a suite of evaluation tools that includes observation, participant surveys and instructor surveys to gather 3 perspectives on participants' social-emotional skills. Participation in CitySprouts Middle School Program is tracked through CitySpan, an online database used by after school programs statewide. A full evaluation report is available upon request.

³ DoS and the Common Instrument are tools within the evaluation suite developed by the PEAR Institute at Harvard University and McLean Hospital.

⁴ The Assessment of Program Practices Tool (APT) was developed by the National Institute on Out-of-School-Time (NIOST). It is part of the Afterschool Program Assessment System (APAS) and is used by over 600 after school and youth programs in 33 states.