



2015/2016 Program Year Report





Letter from Joseph Adamji

To the KAYSC community

For us, 2016 will be remembered not only as the year the KAYSC turned 20, but a year full of challenges and transitions both near and far. In the midst of it all, KAYSC youth and staff demonstrated the strength and importance of our mission to empower youth to change our world through science. By investing time, energy, creativity and trust – in each other, in our work, in our community, and in the power of young people – KAYSC youth and staff are extending the boundaries of what many believe young people are capable of in bringing about the change we wish to see in the world.

KAYSC youth continue to embody the KAYSC's STEM Justice Framework in action – socially-relevant, community-based, STEM education and action – where youth are innovating solutions to address racial, gender, and economic inequities. Young adults who have thrived and moved to department leadership roles, demonstrate the power of pathway programs like the KAYSC, that provide a ladder of opportunities for youth as participants, volunteers, and staff. Our deep and dynamic partnerships provide a platform for young people's experience, skills, and passions to have agency in the community. Youth are learning the power of collaboration to increase our collective impact, simultaneously building opportunities for themselves and others. Our STEM Justice approach is working, and we're excited to share that we have begun to research it, share it, and create opportunities for STEM Justice education to operate in other organizational settings.

This year, we invite you to learn more about the ripple impacts of the KAYSC experience from the voices of our participants, partners, and parents. We have a lot planned as we enter the next 20 years. Look out for opportunities to engage. We're excited to see you.

Joseph Adamji, Director of Kitty Andersen Youth Science Center

Letter from Joanne Jones-Rizzi

Dear friends,

I am pleased to present the 2016 Kitty Andersen Youth Science Center (KAYSC) annual report, which documents the many ways the KAYSC supports youth development, informal STEM education, social justice, community activism, and college readiness in our community and beyond. This report demonstrates that the KAYSC continues thoughtful growth and development of its activities and partnerships, and gives me great confidence that the coming years ahead will be every bit as prolific as the past.

The staff, led by Joseph Adamji, continue to expand the KAYSC's established programs and reach. In addition, we extend our presence by working with donors, schools, out of school time programs, and with other youth development programs situated within museums. The unique qualities of the KAYSC program are shaped by the legacy of Kitty Andersen and her commitment to science and inclusive science education for girls. Thank you, too, to the KAYSC program staff, youth, and parents—past and present—whose dedication makes it possible for the KAYSC program to achieve so much.

Thank you for your ongoing support,



Joanne Jones-Rizzi
Vice President of Education and STEM Equity



Who is Kitty Andersen?

Katherine “Kitty” Andersen was ahead of her time in so many ways. Born in Brooklyn, NY, Kitty graduated from Sweet Briar College with a chemistry degree in 1926 and earned a Master of Science from the Graduate School of New York University in 1933 - at a time when very few women received degrees in the STEM fields. When women’s career options were largely limited to nurse, teacher, or homemaker, Kitty worked in a research lab for the New York City Department of Health before marrying and moving to Bayport in 1941.

After moving to Bayport, Kitty was widely recognized for her contributions to the Andersen Windows Company, which was founded by her husband Fred’s family in 1903. She and Fred were true partners, which is evident in her role as the first Women’s Personnel Director for the Andersen plant when women were hired in the factory during World War II. Kitty started the Andersen employee cafeteria to provide hot meals for employees in 1943, when this practice was rare. The same year, at a time when women serving on Corporate Boards was also a rarity, Kitty was elected to the Andersen Corporation Board of Directors. She served for 50 years, until her retirement in January 1993.

Throughout her life, Kitty was a committed activist and philanthropist, with a particular interest in providing opportunities for young people to learn, explore, grow, and discover possibilities for a productive future. She maintained an affinity to and an interest in the field of science.

In 1996, at the time of her death, several Andersen-related foundations contributed a combined endowment to the Science Museum of Minnesota in Kitty’s honor to open the Kitty Andersen Youth Science Center.

The Kitty Andersen Youth Science Center Approach: **STEM Justice**

The KAYSC STEM Justice approach creates the space for young leaders to apply STEM to address critical community issues. Since the Kitty Andersen Youth Science Center was established in 1996, it has directly engaged youth from groups that have been historically underrepresented in STEM fields. Its mission is **empowering youth to change our world through science**. The KAYSC works toward a future in which young women and people of color represent a large percentage of the researchers, policy makers, educators, innovators, and leaders in STEM fields concurrent with a shift toward innovations that support community development and social justice.

Over its twenty year history, the staff of the Kitty Andersen Youth Science Center have developed a pathway that supports leadership development for youth ages 11-25. After following the program’s three steps, youth exit the KAYSC inspired and confident in their ability to be change-agents and leaders in their community.

In this report, we invite you to learn more about the people who make the Kitty Andersen Youth Science Center such an inspiring and innovative place. You’ll see that our parents, young people, and partners touch – and have been touched – by the program in a myriad of ways. One thing they all share? Passion – for STEM, for their communities, for social justice, and for youth success.



Design Team

Middle School Program: What does science mean for me?

The KAYSC provides after-school STEM Justice programming at seven Saint Paul middle schools, helping put science knowledge into context in an ever-changing world. Youth discover how real-world technology works, learn by doing, and see how science is relevant to their everyday lives. Students who demonstrate their commitment to the program can become museum volunteers and attend programming at the museum. The only STEM Freedom School in the nation is offered to students from participating middle schools in partnership with the Children's Defense Fund, the Saint Paul Promise Neighborhood, and St. Paul City School.

Meet the staff of the KAYSC's middle school program:

DESIGN TEAM TEACHERS

Who we are: The Design Team is a group of enthusiastic and passionate middle school teachers who are devoted to empowering youth to change our world through science. Many of us have been participants in the KAYSC, and all of us come with a passion for youth and social justice.

Words we use to describe ourselves: Exciting, encouraging, empowering, youth, innovative, and science

How being Design Team Teachers have impacted us: We work as a team and develop leadership and communication skills that will help us succeed in our classrooms, in our own education, in future careers, and in our communities.

High School Program: Apply + Lead

The Kitty Andersen Youth Science Center high school program begins with the Kadets, an entry point that introduces new and existing participants to the many ways that STEM can be a tool for advancing social justice. From there, students move into year-round content-based crews that combine STEM learning, community organizing, and career skill-building. At this level, youth focus in one content area of the KAYSC: engineering and design; environmental science; biology and health; and media and technology. Participants in the high school program are paid employees of the Science Museum.

Meet the youth of the KAYSC's high school program:

CLIMATE CHANGE CREW

Who we are: The Climate Change Crew promotes food justice and increases access to healthy foods by using innovative tools and technology.

Words we use to describe ourselves: Food justice, computer programming, proactive, beautiful, fantastic, and insightful

How the Climate Change Crew has impacted others: We encourage teens to act on important issues. We inspire the next generation of scientists and engineers. The Climate Change Crew had the opportunity to lead hands-on activities for 256 youth and families this year through our outreach!

TEEN TECH CREW

Who we are: The Teen Tech Crew creates fun and engaging ways for teens to grow and express themselves, provoking an interest in exploring STEM topics. We influence the teen workforce through an innovative approach for preparing and connecting teens to jobs.

Words we use to describe ourselves: Technology, inspirational, social justice, intelligent, awesome, independent

How the Teen Tech Crew has made an impact: We bring youth voices and leadership to spaces where they typically aren't found! The Teen Tech Crew has created more than 75 hands-on STEM activities that we offered in libraries through Createch, and we trained 30 new youth to lead technology classes in Hennepin County libraries, engaging more than 560 youth overall.

Teen Tech Crew



Linking Educators, Youth, and Learners in Computational Thinking (LinCT) Crew

Who we are: We are an all-girls crew working in both the Lifelong Learning department and the KAYSC, bringing technology camps to Science Museum campers and into the community.

Words we use to describe ourselves: Empowering, innovative, motivated, inspirational, leadership, fun, powerful

How the LinCT Crew has made an impact on our lives: We encourage girls & young women to engage with technology as we re-define STEM & challenge gender norms in society & the STEM fields.



FROGTOWN CREW

Who we are: The Frogtown Crew strives to break down stereotypes and create a safe and peaceful environment to educate our community through authentic connection.

How we describe ourselves: Educators, leaders, youth of color, community, ambitious, trend setters

How the Frogtown Crew has made an impact: We brought awareness about sustainable transportation practices to the Frogtown neighborhood through our outreach and activities, all while staying firmly rooted in the community.

Kadets Crew



HEALTH CREW

Who we are: We are a group of youth focused on building health equity in our community, specifically focusing on nutrition and access to healthy foods. We create fun and engaging activities to teach our community about nutrition and to spark conversations around making informed decisions about what you eat.

How we describe ourselves: family, nutritious, educators, humorous, and hopeful

How the Health Crew has made an impact: We encourage people of all ages to make conscious decisions about what they eat and inspire them to make better food choices by providing them with knowledge about nutrition.

Health Crew



CELL LAB CREW

Who we are: We, the Cell Lab Crew, educate visitors of all ages in the area of cell biology. We encourage them to enjoy learning and to be confident in applying scientific concepts.

Cell Lab is one of the KAYSC's leadership opportunities, giving youth who are excelling with their high school crews additional leadership and career skills. Cell Lab Crew is made up of 8-10 high school youth who learn the art of customer service, interact with museum visitors, and develop biology lab skills. In addition to promoting personal growth, this allows them to build their resumes and acquire skills for college or a career in the future. The Cell Lab Crew staffs the Cell Lab exhibit on Thursday and Friday evenings and all day on Saturday and Sunday. They also provide supplemental coverage during school breaks and holidays.

How the Cell Lab Crew has made an impact: Cell Lab Crew focuses on community by implementing biology content in the Human Body Gallery of the Science Museum of Minnesota. In the Cell Lab, they offer museum visitors fun, interactive, and hands-on experiences. They also help explain how science is related to everyday life.

Cell Lab Crew



Career and Community Connections

The Career & Community Connections program offers career focused internships for 18-25 year olds and professional development for all KAYSC participants. Our work builds bridges between the museum and communities through public events, limited-income discounts, and community engagement projects. Through our work, KAYSC participants become socially-conscious, civically engaged citizens who are actively building opportunities for themselves and others.



75% of KAYSC participants are from low-income families

60% are girls

90% are youth of color



2/3 of youth stated that involvement in the KAYSC has influenced their future career plans.

COLLEGE & CAREER PROGRAMMING

Who we are: Our CTEP and VISTA AmeriCorps members develop innovative programming that prepares youth for success as they progress through academic and career experiences. The curriculum is focused on smoothing transitions from middle to high school, high school to college, and college to career.

How we describe ourselves: Leadership, change makers, cohort, support, growth and development, college, career, transitions, success, goals, and development

How Transitions Workshops have made an impact: Our AmeriCorps members develop innovative activities that prepare youth for successfully transitioning throughout their academic experiences—middle to high school and high school to college and career. Youth participate in Transitions Workshops, take field site visits to businesses and organizations, and receive one-on-one support that focuses on building college and career skills. All youth develop digital portfolios that capture their professional growth and development throughout their KAYSC experiences.



78% of youth felt that the work that they did at the KAYSC helped their community.

100% of youth describe KAYSC as second family

INTERNS

Who we are: Through school year or summer opportunities, KAYSC STEM Justice interns apply STEM knowledge, skills, and tools to make positive impacts on social justice issues in the community. Interns support high school crews, curriculum and assessment projects, and community engagement efforts.

How we describe ourselves: Leaders, educators, community, equity, engagement, change makers, creative, hands-on, informal educators, exploratory

How the KAYSC interns have made an impact: Interns turn on the science in the community! Thirty-one interns brought the community together to dive into an inquiry-based journey to explore the world around them. Interns developed tools to grow both socially and professionally through monthly Leadership Cohort workshops. 50% of interns hired had been employed as High School Crew Members or Design Team members.



82% of our participants enroll in college directly after high school.

GREAT TIX

What it is: The Great Tix program began in the early 1980s to provide discounted exhibit access to groups serving participants with limited incomes. Since its inception, the Great Tix program has expanded; it now provides discounted access to individuals and families who receive some sort of public assistance, as well as to schools and non-profit groups. The Great Tix program provides discounted dual and household memberships, specialized organizational partnerships, programming scholarships, and bus subsidies for schools and groups. KAYSC staff support the marketing and programming to support.

Words we use to describe Great Tix: Access, equity, discount, bridge, community

How the Great Tix program has had an impact: In 2016, **19,285 family members and individuals** visited the museum with support from the Great Tix program.. **1,324 visitors** used a Great Partner coupon to visit the museum.




74,903 visitors used the Great Tix programs to access the Science Museum of Minnesota.

EVENTS

The impact of our events: KAYSC community events support youth to create bridges between the museum and surrounding communities. These events are collaboratively planned by youth and adults.

The two primary events hosted each year are Project ME and Youth Science Day. Project ME connects youth to artists as they learn about social justice issues through the lenses of science and art. Youth Science Day is an annual celebration of young people and the work and learning they do around STEM and social justice. Other smaller scale events are held throughout the year as opportunities arise.



Goals - Objectives: The goal is to provide a variety of ways to introduce and invite people to the museum, specifically young people, people of color, and people with limited incomes who do not traditionally visit the museum.

How KAYSC events have made an impact in our lives: KAYSC community events support youth to create bridges between the museum and surrounding communities. KAYSC events provide opportunities for authentic community engagement.

PARTNER SPOTLIGHT

Emma Pachuta

Who I am: Program Director, Smart Trips and Kitty Andersen Youth Science Center Strategic Partner

How I describe myself: well-intentioned, awkward, blunt, loves traveling, collaborative

How Emma's involvement with the KAYSC has made an impact: The Frogtown Crew has been a pilot program in partnership with Saint Paul Smart Trips and the Kitty Andersen Youth Science Center. The crew's goal has been to increase walking and biking trips in the Frogtown neighborhood while building youth leaders in the community. This partnership has helped evolve Smart Trips' neighborhoods program into one that focuses on grassroots relationship-building and empowers young people to become leaders of change in their community, while working to get more people to walk, bike, and take transit.



100% of KAYSC participants have graduated from high school or earned their GED.



PARENT SPOTLIGHT

Beatriz Luciano-Rozie

Who I am: Parent of KAYSC youth and chair of KAYSC Parent Advisory Committee

How I describe myself: Persistent, tough, freethinker, mom

How the KAYSC has made an impact in my family's life: Kitty Andersen

Youth Science Center has empowered my daughter to undo structural social and environmental injustices. It has given her the opportunity to immerse herself in dialog with other youth to create a world where it is easier to have hope for social justice—locally and globally. The KAYSC inspires her to think precisely, question everything, and form her own theories. It has been transformative. She has evolved into someone who is truly in love with science. The KAYSC Parent Advisory Committee meets quarterly to build community and advise on KAYSC programs.



86% of KAYSC youth agreed or strongly agreed with the statement
“I like science.”



Engaging Youth
336 Design Team
63 High School
36 Interns



Community Engagement
Total Community Impact:
12,423 community members
reached through youth-led
programming



Inspiring change
The majority of KAYSC youth will be
first-generation college students
99% aspire to go to college, trade
school, or vocational school





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