



Opportunities for Sustaining GTECH's Green Playces Initiative





PREPARED BY
GTECH Strategies
Growth Through Energy + Community Health
6587 Hamilton Ave | Pittsburgh, PA 15206
www.gtechstrategies.org

THE TEAM
Rachel Bowers
Tom Mulholland
Anna Archer
Gavin White
Ian Brown
Tacumba Turner

Table of Contents

EXECUTIVE SUMMARY

INTRODUCTION1

A. Who We Are

B. History of Green Playces

C. Work to Date

PLACEMAKING7

A. Youth Centered Placemaking

B. Arts Based Placemaking

C. Sustainability-minded Placemaking

CONNECTING YOUTH TO THE ENVIRONMENT13

A. Play Based Learning

B. Place-based Learning

C. Engaging Students with Special Needs

EXPANDING GREEN PLAYCES23

A. Community Needs Assessment

B. Mapping Vacancy

OUTCOMES: FUTURE OF GREEN PLAYCES29

A. Playce-Based Learning

B. Green Playce-Making

C. Funding Models/Frameworks

APPENDIX37

A. Potential Community Partnerships

B. Green Playces Conferences

C. National Case Studies

Executive Summary

There is a growing body of evidence that demonstrates the value of exposing youth to the environment as a means to prepare them for life's challenges. From higher achievement in school to decreased stress levels, there are significant, lasting benefits when we connect youth with the natural world. Despite this, there is also evidence that many children in Allegheny County do not have access to safe, outdoor environments. Drawing from this, GTECH piloted the Green Playces Initiative in 2015 with the goal to create outdoor spaces that give youth the opportunity to connect with their local environment. Since launching the Initiative, we have successfully completed eight Green Playces in partnership with youth programs across Allegheny County.

Based on the success of our initial programming as well as growing interest from funders, partners, and community organizations, we are confident the Green Playces Initiative has a bright future. However, we are wary of growing the program at a pace that would push the limits of our capacity and would thus limit the depth of our impact on the communities our Green Playces serve. As the initiative evolves, we want to ensure that growth is intentional and sustainable. We therefore spent much of 2017 examining best practices and exploring a range of possible futures for Green Playces, thanks to support from The Heinz Endowments. This resulting Business Plan outlines possible outcomes for the Green Playces Initiative, given what we learned through our research, experience, and interviews with comparable programs nation-wide.

This report details the benefits of youth-based placemaking, youth in nature, and trends in environment-based education that we feel should be considered when adapting the Green Playces Initiative moving forward. This report also includes an ArcGIS Hot Spot Analysis that details levels of vacancy throughout Allegheny County, bringing into focus where potential Green Playce sites could occur in the future. Building from our extensive research, this report will highlight four recommendations that we feel will lead to successful growth of the Green Playces Initiative moving forward:

GROWTH MODELS

We understand that there are many avenues through which Green Playces can continue to grow and expand its reach. In this report, we highlight three different growth models. The first, our **project-by-project model**, envisions Green Playces growing one project at a time, through varying funding streams. The second, our **multi-year, multi-project model** envisions programmatic funding for Green Playces that would allow us to establish an even more consistent program process. The third, our **permanent partner model**, envisions Green Playces as a program embedded into a larger institution like a school system or after-school network.

FRAMEWORKS FOR EDUCATION + PLACEMAKING

Drawing from our research on placemaking and environment-based education with youth, we created a unique curriculum & placemaking framework that informs what kind of experiential learning, play, and workforce development accompany the Green Playce site before, during, and after it is built. We call these frameworks **Playce-Based Education** and **Green Playce-Making**.

GREEN PLAYCE PROGRAMMATIC PROCESS

We recognize and celebrate that each Green Playce project is unique. From Green Playce to Green Playce, we work in diverse communities that have different needs and interests from one another, with different time frames, different funding, and different youth voices at the core. With this understanding, we feel it is important that our process is consistent within those variable scopes of work. To establish this consistency, we developed a framework for a programmatic process that takes us from application and selection of project partners, through the creation of a Green Playce site, to the celebration and sustainability of projects.

EVALUATION

Having an established definition of success and methodology to measure that success is critical to the responsible growth of the Green Playces Initiative. Without a reliable way to understand what we are doing well and what we need to work on, we can not effectively meet our established goals or hold ourselves accountable to do our best possible work. Our evaluation model establishes indicators and measurements that rate inputs and outputs for measuring strategic outcomes in the categories of placemaking, partnerships, processes, and youth development.

Next Steps

Based on our insight into industry trends and best practices, we feel confident developing Green Playces to build longer, deeper relationships with youth programs by including more intensive programming to complement our placemaking efforts. We feel this goal can be successfully achieved by going in one of two directions.

The first direction is to significantly lower the number of youth programs we partner with and, therefore, the number of Green Playce sites we build each year, but to go much deeper with those partners. This would include a two-year engagement that includes capacity-building workshops with staff, biweekly sessions with youth over the two-year period, and a network of outside partners being looped in to engage with students on-site. In this direction, we would build 4 Green Playce sites over 3 years.

The second direction is to maintain the number of youth programs we partner with each year, while still drawing from our lessons learned in the past two years to create a more robust, deeper relationship. The engagement may be limited to 9-12 months, but this is still more significant than our previous Green Playce relationships. In this direction, we would build 6 Green Playce sites over 2 years.

Both directions carry the same financial cost, create a deeper relationship between GTECH and the partnering youth program, and result in the creation of an active, robust Green Playce site with and for youth. We are comfortable going in either direction based on interest from foundations and partners, and feel that either direction will result in successful Green Playce programs with engaged partners.



Introduction

This section briefly provides history about GTECH and the Green Playces initiative, including our work to date.

Introduction

Who We Are

Growth Through Energy & Community Health (GTECH) Strategies was founded in 2007 out of public policy research at the Heinz College investigating and implementing catalytic green strategies to enhance and fuel community development activities in distressed communities. Since its inception, GTECH has a rich history of working with communities to develop solutions for some of the most complex environmental problems they face.

GTECH's mission is to cultivate the unrealized potential of people and places to improve the economic, social, and environmental health of vulnerable communities. At the heart of GTECH's mission is the premise that the process of improving places cannot only be a driver of economic development, but also a tool for individual empowerment. This focus on improving both people and place simultaneously can fuel an inclusive community development process.

History of Green Playces

The founding premise for the Green Playces Initiative began in 2008, when GTECH partnered with volunteers from the Student Conservation Association (SCA) to build a fence, remove rubble, and plant canola seeds on two vacant lots in Pittsburgh's Garfield neighborhood as part of our since-retired biofuel program. The sites, owned by the Sojourner House MOMS program, were selected for their proximity to program housing for single mothers struggling with addiction and were meant to provide a safe alternative place for children in the program to play rather than the streets. The fall harvest for that project was used as an opportunity to educate children on the production of biofuel crops and begin a conversation around productive reuse. In 2009, the site was then transitioned into a play yard to serve the children of Sojourner House. A Design Fund Grant enabled Stantec (known then as Burt Hill) to design the space using recycled materials and in 2013,

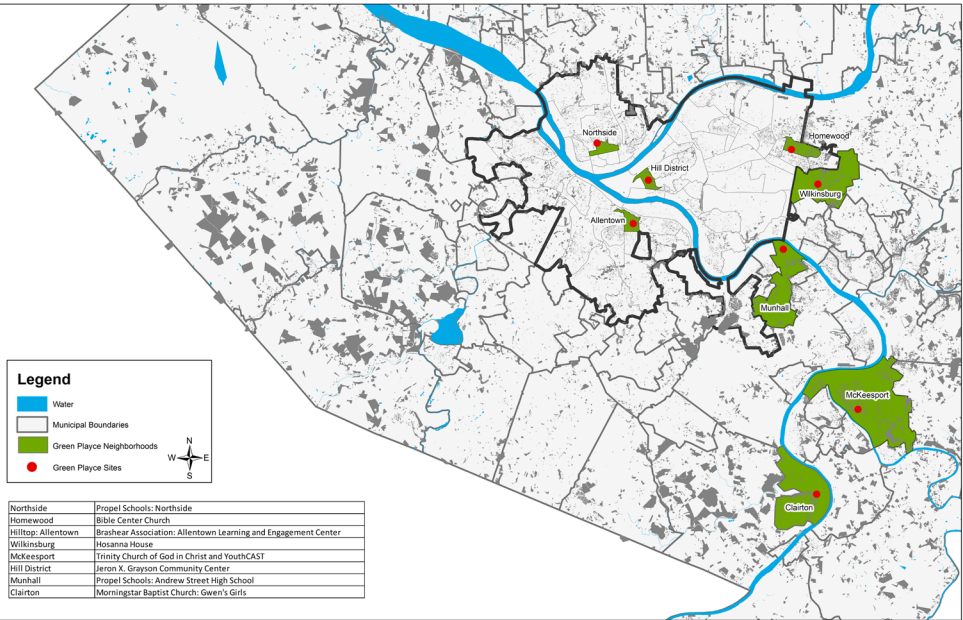
GTECH received a grant through the Heinz Endowments' Youth Philanthropy program to complete the installation of additional amenities and support the ongoing programming of the space.

Following the success of this project, the Heinz Endowment's Children, Youth, and Family Program asked GTECH to explore opportunities for expanding the availability of similar projects that would engage environmental partners and youth services throughout Pittsburgh. As a result, GTECH began exploring how to increase collaboration and implementation of environmental programming through community-based organizations and youth services with particular focus on addressing blight and vacancy in distressed communities, resulting in the Youth in Green Report. Out of this effort, 4 recommendations were made to tackle vacancy through youth programming in highly affected neighborhoods within the city. The Green Playces Initiative was a direct result of the Youth In Green Report, incorporating the first 3 of our 4 recommendations:

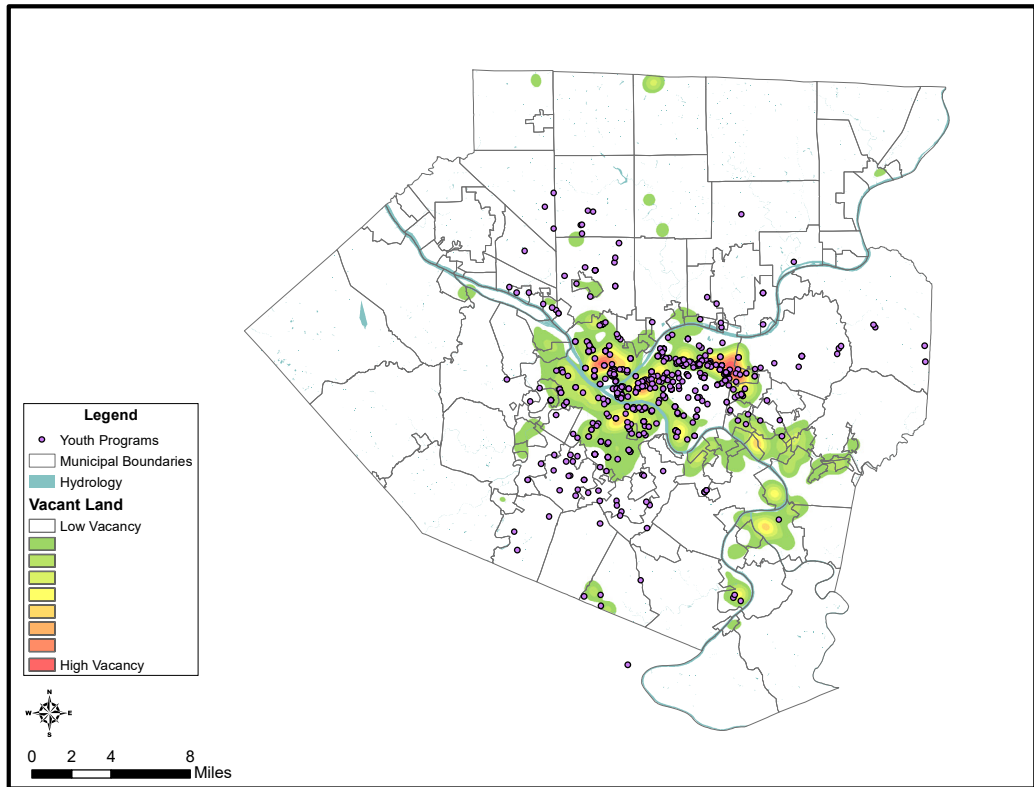
1. Produce facilitated community conversation in five communities to establish an ongoing working group aligned with existing community dialogue to implement an action plan for potential resource sharing, as it pertains to integrating environmental investments and youth service delivery.
2. Conduct focused, place-based projects with ecologically appropriate themes tied to hands-on learning sessions conducted in partnership with partners participating in recommendation #1.
3. Implement safe, engaging, and fun green spaces for younger children to learn and play where there is vacant land in proximity to youth facilities.
4. Build capacity with existing youth service providers and young adults through a landscape-themed workforce development program with hands-on experience and an appreciation for the community development process.

GTECH's research highlighted where the need for this type of initiative seemed greatest within the City of Pittsburgh by overlaying concentration of vacant land, age distributions, and presence of programming with and without an environmental focus. This

Map 1: Existing Green Playces Sites



Map 2: Allegheny County Vacancy with Youth Programs



Source: Vacant land data from 2016 Allegheny County Real Estate Assessment. Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH

Table 1. Green Playces Initiative Metrics 2015-2017

LOCATION	NUMBER OF PARTNERS	COMMUNITY MEETINGS AND CHARRETTES	VOLUNTEERS ENGAGED TO BUILD SITE	NUMBER OF YOUTH ENGAGED	HOURS OF VOLUNTEER LABOR
Northside	9	136	72	94	285
Homewood	12	126	92	30	292
Hilltop	8	88	107	89	178
McKeesport	10	68	81	67	237
Hill District	7	54	45	40	132
Wilkinsburg	8	92	140	109	318
Munhall	3	72	28	72	92
Clairton	12	136	177	125	477

analysis has and will continue to assist with the selection of future community partners for Green Playces projects and has been expanded to the entire County (Map 1.) As current data become available, this information will be updated to inform decisions about future partners, location, and sites.

Work to Date

Since the program began in 2015, GTECH has completed eight Green Playce sites throughout Allegheny County, including the Pittsburgh neighborhoods of Central Northside, Homewood, the Hill District, Allentown, and the municipalities of Munhall, Wilkinsburg, McKeesport and Clairton.

In addition, the existing sites have hosted 20 educational modules, engaging 722 youth for a total of 1320 hours of educational programming. The goal of each site is to have a creative, functional outdoor space that can be utilized by residents, community groups, and youth programs. Our partnerships with other environmental nonprofits and community based organizations enliven these spaces and add an extra layer of engagement.



Placemaking

This section details our research on placemaking as it pertains to the Green Playces Initiative. We look into placemaking with youth, arts-based placemaking, and sustainability-minded placemaking.

1. "What Is Placemaking?" Project for Public Spaces, www.pps.org/reference/what_is_placemaking/.

2. Silberberg, Susan, et al. "Places in the Making: How Placemaking Builds Places and Communities." DUSP/MIT, Massachusetts Institute of Technology, 2013, dusp.mit.edu/sites/dusp.mit.edu/files/attachments/project/mit-dusp-places-in-the-making.pdf.

3. Beyer, Kirsten, et al. "Exposure to Neighborhood Green Space and Mental Health: Evidence from the Survey of the Health of Wisconsin." *International Journal of Environmental Research and Public Health*, vol. 11, no. 3, 2014, pp. 3453–3472., doi:10.3390/ijerph110303453.

4. Wen, Ming, et al. "Spatial Disparities in the Distribution of Parks and Green Spaces in the USA." *Annals of Behavioral Medicine*, vol. 45, no. S1, 2013, pp. 18–27., doi:10.1007/s12160-012-9426-x.

Placemaking

Placemaking is a community-centered philosophy and approach to the planning, design, and creation of public spaces. Placemaking aims to create a physical environment that brings residents together and celebrates the people, history, and culture that make up a community¹. As described by the MIT Department of Urban Studies and Planning (DUSP), the placemaking approach defines "place" not as a medium for transit, aesthetic, or efficiency, but as accessible, connected areas for social interaction, comfort, and activity². The Green Playces initiative is a form of placemaking in which youth are both the primary stakeholder and the primary decision-makers.

POWER OF PLACE

It is becoming more and more understood that the places in which we live play a significant role in our health and well-being. A 2014 literature review by the Institute for Health and Society in Wisconsin found links between access to greenspace and "benefits such as recovery from mental fatigue [1–7], stress reduction [8–10] neighborhood social cohesion [11], reductions in crime, violence and aggression [12–15], reduced morbidity in multiple disease categories [16–18] and better self-reported health [17–19]."³

Despite this evidence, however, it is also understood that access to well-maintained, safe greenspace is not equitably distributed. A 2013 study published in the *Annals of Behavioral Medicine* used 2010 census data and found a negative correlation between poverty level and distance to parks and green space in the United States⁴. Drawing from this, we recognize the potential health impact of placemaking for creating greater access to vibrant, outdoor spaces throughout Allegheny County, especially for youth in low- and moderate- income neighborhoods.

Best practices for Placemaking

This section explores some of the philosophy that will inform our placemaking process as we continue to build Green Playce sites throughout Allegheny County. We will primarily focus on a youth- and community-driven process, and the influence of art and sustainability.

YOUTH-CENTERED PLACEMAKING

The Green Playces initiative is centered around the well-supported idea that providing opportunity for outdoor play and connection to nature is essential for positive youth development⁵. In fact, the United Nations recognizes a Child's Right to Play as a fundamental right for children worldwide.⁶ There are, however, many ways to approach the design, planning, and creation of outdoor spaces to successfully encourage play and learning.⁷ One of the first considerations for this process is the kind of play that is being encouraged. Traditional playgrounds, while often very safe environments, can be limiting in terms of what kind of play they allow. To counter this, play researchers over the past 50 years have developed a series of research-informed elements that support youth development and provide opportunity for positive play⁸. Two of the common elements that play researchers turn to are providing **natural environments** and **loose parts**.

Natural Environments

In their 2008 paper, White and Stoecklin argue that natural environments allow open-ended play experiences:

To be effective and engage children based upon their developmental abilities and ways of learning, their hands-on sensory experiences need to be immersive and open-ended rather than structured and scripted. When it comes to environmental education, the best learning environments are informal and naturalistic outdoor nature-scapes where children have unmediated opportunities for adventure and self-initiated play, exploration, and discovery.⁹

In a 2014 review of youth-based landscape design literature, Habibe Acar describes some of the other benefits of creating natural, outdoor playscapes for kids in urban environments:

- "Nature contributes in terms of psychological, cognitive, and emotional health, treatment of attention deficit and hyperactivity disorder, motor development, play quality, increased sensitivity to the environment, socialization.
- Nature develops the imagination, creativity and social play.
- Nature evokes positive emotions, sense of place.

5. White, Randi, and Vicki Stoecklin. "Nurturing Children's Biophilia: Developmentally Appropriate Environmental Education for Young Children." White Hutchinson - Leisure & Learning Group, www.whitehutchinson.com/children/articles/nurturing.shtml.

6. "Child's Right to Play." International Play Association, ipaworld.org/childs-right-to-play/the-childs-right-to-play/.

7. Acar, Habibe. "Landscape Design for Children and Their Environments in Urban Context." *Advances in Landscape Architecture*, Jan. 2013, doi:10.5772/55751.

8. Woolley, Helen, and Alison Lowe. "Exploring the Relationship between Design Approach and Play Value of Outdoor Play Spaces." *Landscape Research*, vol. 38, no. 1, 2013, pp. 53–74., doi:10.1080/01426397.2011.640432.

9. White, Randy, and Vicki L Stoecklin. "Nurturing Children's Biophilia: Developmentally Appropriate Environmental Education for Young Children." 2008 White Hutchinson Leisure & Learning Group.

10. Acar, Habibe. "Learning Environments for Children in Outdoor Spaces." *Procedia - Social and Behavioral Sciences*, vol. 141, 2014, pp. 846–853., doi:10.1016/j.sbspro.2014.05.147.

11. Sharpe, Deborah. "The Theory of Loose Parts." *Practical Pre-School*, vol. 2011, no. 129, 2011, pp. 11–12., doi:10.12968/prps.2011.1.129.11

12. Casey, Theresa, and Juliet Robinson. "Loose Parts Toolkit." <https://lssuu.com/Playwales/>

- Nature has a stimulating effect.
- Nature allows thinking, observation, and research.
- Natural environments are rich, tutorial, educational, and informative environments."¹⁰

Loose Parts

In 1977, architect Simon Nicholson proposed the "Theory of Loose Parts" that has since become a widely-used principle for playspace designers. In this theory, Nicholson outlines that, as opposed to large playgrounds that have fewer, large parts, providing youth with many, small parts allows them the opportunity to play, experiment, and discover in seemingly infinite ways.¹¹ Small parts can include natural resources like straw, mud, and pine cones, building materials and tools, scrap materials, and randomly found objects.¹²

In their Loose Parts Toolkit, Scotland's Play Strategy Group outline some of the benefits of using loose parts:

- "Increasing levels of creative and imaginative play
- Children play co-operatively and socialise more
- Children are physically more active
- Curriculum outcomes occur through informal play with loose parts (Wagland, 2015)
- Loose parts facilitate communication and negotiation skills when added to an outdoor space (Maxwell, Mitchell and Evans, 2008)."

There are, however, drawbacks to using the Loose Parts Theory or Natural Environments in practice. Loose parts and natural playscapes often need more replacing, storage, and maintenance than permanent, large play structures require. This means that these spaces may require an advocate, staff member, or community member to monitor and maintain the space.

Youth Participation in Placemaking

It is essential in any placemaking process to encourage, listen to, and magnify the voices of those who will be utilizing the space most

often. This intentional, community-centered effort is one of the cornerstones of the placemaking process, and is just as important when placemaking with youth as it is with adults. However, youth voices are often overlooked in the planning process in favor of meeting the needs, preferences, and pre-conceived notions adults carry. This leads to public places with which young people have limited interaction and are therefore cut off from their community. Other times, this adult-centered approach may lead to youth-oriented playspaces that don't adequately encourage children to meet their full potential for play, discovery, imagination, and social interaction.^{13,14}

There is much to gain from involving youth in the planning process. A 2006 study in the *Journal of Planning Literature* discusses the many ways in which both youth and the broader community benefit from having youth at the table:

"Many of the benefits are similar to those achieved through adult participation (i.e. public participation in general), but the benefits to youth are amplified because youth are undergoing rapid psychosocial development and have few opportunities for participation in the past. The potential benefits are as follows:

- Youth participants directly benefit as a result of the educational, entertainment, or networking aspects of planning processes;
- Youth appreciate having a voice in public affairs and feel more connected to their community and environment;
- Communities, composed of both youth and adults, benefit directly from the project and policy outcomes of youth participation, because youth act as resources and support common values;
- Larger society benefits indirectly from the social learning that occurs."

Despite the potential positive outcomes of youth participation in planning, Dr. Roger Hart of the Children's Environment Research Group warns against using youth in disingenuous ways that undermine a project's success. To better explain this, Hart introduces a "ladder" metaphor for youth participation.

13. Lennard, Henry L, and Suzanna H Lennard. "The Forgotten Child: Cities for the Well-Being of Children." *Choice Reviews Online*, vol. 39, no. 01, Jan. 2001, doi:10.5860/choice.39-0627.

14. Shell, Ellen R. Kids Don't Need Equipment, They Need Opportunity. *Smithsonian Magazine*, www.pps.org/reference/kids_smithsonian/.

15. Hart, Roger. "Creating Playspaces by and for Children." Project for Public Spaces, Children's Environments Research Group, www.pps.org/reference/righttoplay-2/.

16. 7 Principles I Respect Youth, respectyouth.com/7-principles/

17. "Case Studies." <http://stem-tosteam.org/case-studies/>

18. "How Arts and Cultural Strategies Enhance Community Engagement and Participation." American Planning Association. <https://www.planning.org/research/arts/briefingpapers/engagement.htm>

19. "Creative Communities and Arts-Based Placemaking." Project for Public Spaces, www.pps.org/reference/creative-communities-and-arts-based-placemaking/

At the lowest rungs of this ladder, youth are not actually part of any decision-making process but instead are used as props or symbols for purposes of appearance. In the middle of the ladder, adults lead the design process but share decision-making power with youth. At the highest rungs of the ladder, the process is initiated and led by youth, and decisions are shared with adults.¹⁵

To establish a successful, youth-driven process, Respect Youth, a Canadian non-profit, outlines 7 principles for authentic youth engagement:¹⁶

ARTS-BASED PLACEMAKING

The incorporation of art in its many forms has been a central part of the Green Playce process since its inception. Whether stakeholders are sketching ideas for a space or painting a mural on site, the hands-on engagement and resulting ownership that art can inspire adds immeasurably to the overall engagement, planning, and construction process of any project.

Non-profit STEM-to-STEAM makes an argument for incorporating art into science education and outdoor spaces. They make the case that art can:

Communicate less tangible aspects of the environment

Early photographer Charles Negré insists that "the three torches of observation, feeling and reasoning guide the study of nature." Art is a way for people to document a variety of observations in nature and an outlet for the complex feelings of being in it. Whether drawing an unknown plant, taking photographs of specimens, or writing down personal observations in a journal, art can provide an outlet for all of the imprecise and complex interrelations in nature..

Visualize complex environmental systems

Art can also communicate the reasoning and science behind the environment. Captivating renderings of processes like the water cycle or photosynthesis can be powerful tools for explaining how nature works in a

way that people can understand and appreciate.¹⁷

The American Planning Association recently published a brief on "How Arts and Cultural Strategies Enhance Community Engagement and Participation," in which they elaborate on three key points:

- Creative tools can strengthen the understanding and exploration of community values.
- Creative tools can increase stakeholder involvement.
- Creative tools can better engage people in community and urban design projects.¹⁸

Art Represents a community's history and aspirations

The Project for Public Spaces describes Art-Based placemaking as a "fundamentally collaborative" process by which "The community itself is both the driving force of the project and the key measure of its success." They argue that unless community stakeholders are involved from the very beginning, arts-based placemaking is nothing more than an artist's project.¹⁹

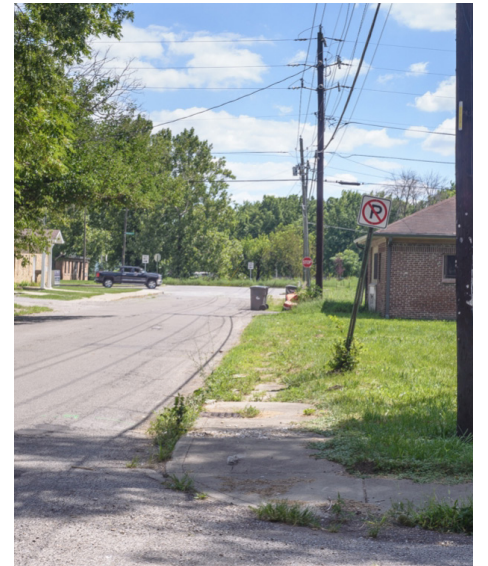
GTECH works in mostly urban environments with rich and complex history. As opposed to a thoroughly wild space, the people that have lived in and will continue to live in these neighborhoods are a part of the environment and cannot be disregarded. Art projects are a great way to tell their story and to broadcast their visions.

National Examples

THE HOUSE POEM PROJECT: RECLAIM 46208

Funded by Artplace America, RECLAIM 46208 is a project sparked out of two women who, when developing a Safe Route to School plan in their Northwest Indianapolis community, found that vacant buildings and crumbling infrastructure made giving their area's youth safe passage to and from school a challenge. They are working with their community, youth, and artists to paint vacant buildings, sidewalks, and intersections to make their community more vibrant for youth and adults alike. They also found that in doing so, they could address other deep-rooted challenges in their community:

"With a little deep thinking, understanding our commu-



The House Poem Project: Sidewalk Transformation: Before. Photo Credit: RECLAIM



The House Poem Project: Sidewalk Transformation: After. Photo Credit: RECLAIM



New murals grace the walls of the Hennepin Theater District. Photo Credit: Katherine Peinhardt

20. Storm, Lashawnda, and Phyllis Boyd. "Safe Streets Are Possible." ArtPlace, 24 Oct. 2017, www.artplaceamerica.org/blog/safe-streets-are-possible.

21. Bolden. (2013). UTILIZATION OF RECYCLED AND WASTE MATERIALS IN VARIOUS CONSTRUCTION APPLICATIONS. American Journal of Environmental Sciences, 9(1), 14-24.

nity and tweaks to the process, we were able to take the initial funding of a \$10K grant through a 5x5 competition and adapt this project to address literacy, abandoned properties, adult education / skill building, community safety, and peacebuilding, as well as a people-centered approach to community development - meaning how do our dollars get into the hands of local community members as opposed to contractors from outside the community."²⁰

5 TO 10 ON HENNEPIN

Funded through Southwest Airline's Heart of the Community grant, the Hennepin Theatre Trust in Minneapolis worked within their community to create a safe and welcoming public space for vulnerable youth and adults experiencing homelessness. With community voices driving the decisions, two murals and outdoor event spaces were erected, and events were held in which community members could showcase and enjoy live performances, games, food, and public art.

SUSTAINABILITY-MINDED PLACEMAKING

GTECH strives to use reused or reclaimed materials and source locally when possible. Using recycled materials helps teach kids about the importance of waste as well as how to creatively use materials that already exist. This practice is valuable for many reasons, it allows our project budgets to go further, and it eliminates waste going into the landfill. Using locally sourced goods and services helps the local economy and can lead to workforce development opportunities for residents. According to an article published by the American Journal of Environmental Science in 2013, recycling of construction materials saves natural resources, saves energy, reduces solid waste, reduces air and water pollutants, and reduces greenhouse gases.²¹

Additionally, GTECH looks to use native plants on projects whenever possible. According to the Audobon Society, restoring native plant habitats is vital to the preserving biodiversity and provides several benefits including: low maintenance, requires limited to no fertilizer, conserves water, and enhances local ecology.



Connecting Youth to their Environment

This section highlights our research on best practices for engaging youth with their outdoor environment. This includes place-based education, play-based learning, and engaging students with special needs.

22. Deuchar, R., & Bhopal, K. (2017). Conclusion: The Future for Young People and Social Control – Learning from the Problems and Prospects. *Young People and Social Control*, 171-178.

23. Barr, S., Cross, J., Dunbar, B. (2014). The Whole School Sustainability Framework. Institute for the Built Environment at Colorado State University website: http://centerforgreenschools.org/Libraries/Publications/Whole-School_Sustainability_Framework.sflb.ashx

24. Ernst, J., & Monroe M. (2004). The Effects of Environment-Based Education on Students Critical Thinking Skills and Disposition Toward Critical Thinking. *Environmental Education Research*. 10 (4), 507-522.

Connecting Youth to their Environment

The existence of outdoor playscapes and classrooms is important for providing dedicated space for children to learn, play, and explore in nature. While these spaces often signify a healthy, vibrant community, their existence alone does not ensure that children are meaningfully engaging with the outdoors.²² The Institute of the Built Environment proposes that there are three factors that together create sustainable, successful outdoor engagement for youth: Physical Place, Educational Programs, and Organizational Culture.²³ Following that model, our Green Playce sites serve as the “Physical Place.” This section focuses on how to then use that space to cultivate outdoor community engagement, addressing “Educational Programs”.

We have many opportunities to engage with youth throughout the Green Playces process. As is consistent with all GTECH projects, we put decision-making power into the hands of those who will be using and stewarding the site. In this case, that means working alongside our participating youth programs to design, plan, and build our Green Playces. Once the Green Playce is built, we return to engage youth with the site through creative, outdoor education sessions. To make this process a reality, we researched best practices for engaging youth outdoors. The following analysis is not comprehensive, but highlights some of the current understanding and best practices related to environment-based learning that have informed our process thus far.

The Benefits of Environment-based Learning

There are significant benefits to participating in environment-based learning opportunities. A 2004 study by the University of Minnesota showed that student’s critical thinking skills improve significantly compared to their peers in traditional instructional programs, including conventional environmental science classes, when engaged in outdoor learning opportunities. Students also

reported that they felt empowered to be responsible for their own learning.²⁴

In a 2004 study at Loyola Marymount University, teachers noted that they saw improvements in their students’ critical thinking and dispositions as a direct result of the integrative and interdisciplinary nature of urban environmental education.²⁵ The systemic nature of environmental education proved to be a great integrator of diverse subject areas, created opportunities for exploring connections between natural and social systems, and provided opportunities for using critical thinking skills in a real-world setting.

Programs that combine the use of outdoor spaces with informal learning and engagement activities have been shown to correlate with measurable improvements to children’s behavior²⁶, predict pro-environmental attitudes, and are essential to children’s development.²⁷

Additional benefits include:

- Increased science inquiry skills and behaviors,
- Ability to wonder, question, explore, investigate, discuss, reflect, and formulate ideas and theories that are directly related to informal science learning²⁸
- Promote new competencies that lead to enhanced confidence and resilience when facing future challenges,
- Use of creativity while developing imagination, dexterity, and physical, cognitive, and emotional strength,
- Healthy brain development²⁹

25. Tidball, K. G., & Krasny, M. E. (2010). Urban Environmental Education from a Social-Ecological Perspective: Conceptual Framework for Civic Ecology Education. *Cities and the Environment*, 3(1), 1-20.

26. Blair, D. (2009). The Child in the Garden: An Evaluative Review of the Benefits of School Gardening. *The Journal of Environmental Education*, 40(2), 15-38.

27. Reading, R. (2007). The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Child: Care, Health and Development*, 33(6), 807-808.

28. Nelson, D. R., Chalufour, I., Worth, K., Moriarty, R., Winokur, J., Grollman, S. H., ... Education Development Center. (2003). *Discovering nature with young children*.

29. Reading, R. (2007). The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Child: Care, Health and Development*, 33(6), 807-808.



30. Ward, L. (2017, July 31). Children should learn mainly through play until age of eight, says Lego. Retrieved from <https://www.theguardian.com/education/2016/mar/15/children-learn-play-age-eight-lego>

Best Practices for Engaging Youth Outdoors

There are many existing models for providing outdoor and environmental education opportunities for children. Youth programs exist through nature centers, zoos, land trusts, and other settings that exist with the purpose to connect people to nature and wildlife. These programs generally limit their educational offerings to match their specific focus and space (i.e. a youth conservation program through a land trust organization) so, while ideal for meeting the goals of the sites they serve, are not models that best match the broadness and variability of our Green Playce sites. In this section, we look into national models, best practices, and lessons learned so far in the Green Playce process that have and will continue to inform the way we engage youth with Green Playce sites before, during, and after their creation.

PLAY-BASED LEARNING

Many programs are adopting an approach to teaching children in nature known as play-based learning. Play-based learning incorporates unstructured play time as opposed to formal, structured education. Over the last decade, enormous evidence has been gained about the value of play-based learning in children's development of empathy, problem-solving, and creativity.³⁰

Case Studies: Play-Based Learning in Action

The Cincinnati Nature Center's Playscape program credits play-based learning for its success. The program has found that when executed correctly, children display more enthusiasm and excitement about being in nature. They also learn to take initiative and ask questions. The Nature PlayScape has identified that their number one priority is to make sure kids walk away with a positive experience in nature. In order to meet this goal, the staff have undertaken specialized training to become play facilitators.

At Common Ground, an outdoor learning lab in New Haven, Connecticut, 33% of all programming is allocated to unstructured play. They find that the children are engaging most with nature when they have free range to explore, dig, move, and truly interact with the things they see. Common Ground bases their instruction-

style off of a concept called Play Worker. The role of the Play Worker is to support play in nature by taking a relatively hands-off approach. Many other programs are adopting this approach due to its effectiveness and ability to keep kids engaged outdoors.

Because of this movement towards supporting unstructured play, it is becoming more common to have community members, rather than a trained educator, serve as instructors. There are a variety of online resources to prepare these community leaders for the role of outdoor educator. For instance, an online resource Tinkergarten connects community advocates with an online resources to lead activities. It works to cultivate a network of parents and instructors who share an interest in making time outdoors a fundamental part of kids' lives. These programs rely on informal connections and champions to maintain programming for children.

PLACE-BASED EDUCATION

Place-based education is a learning approach that uses all aspects of a school's or youth program's unique, local surroundings as the context for understanding their home community's built and natural environment, history, culture, and social fabric. As defined by the Center for Place-Based Learning and Community Engagement, place-based learning "places students in local heritage, cultures, landscapes, opportunities and experiences, and uses these as a foundation for the study of language arts, mathematics, social studies, science and other subjects across the curriculum."³¹

Because the nature of place-based education utilizes a community's local environment as the basis for instruction, it is a learning model that can be adapted for virtually any setting and any subject. Schools and youth programs across the country have put place-based learning at the core of their teaching philosophies. Locally, for instance, the Winchester Thurston School in Shadyside has a nationally-recognized "City as Our Campus" program that takes advantage of Pittsburgh's unique landscape, economy, and culture to give its K-12 students real-world understanding of what they are learning in their classrooms.

In 2016, Getting Smart in partnership with Education Innovation and Teton Science Schools, released a report that looked to understand best practices and outcomes for place-based education.³² The

31. What is place-based education and why does it matter? 2016 report by GettingSmart, Edulnnovation, and Teton Science Schools.

32. What is place-based education and why does it matter? 2016 report by GettingSmart, EduInnovation, and Teton Science Schools.

report found that benefits of place-based education include:

- “Learning is grounded in local communities and contexts.
- Learning is relevant and engaging.
- Instruction can be interdisciplinary.
- Students can gain better appreciation and understanding of the world around them.
- Students can meet deeper learning outcomes.
- Design-thinking can be encouraged.
- Learning is relevant and engaging
- Students can have more agency and autonomy - boosting motivation and persistence.”



ENGAGING STUDENTS WITH SPECIAL NEEDS

While a connection to the natural world is beneficial for everyone, the calming nature of greenspace can be extremely soothing and comforting for children who perceive the world differently. It can be something of a common language, a safe space for children with autism to grow and connect with both nature and other people, often a challenge in other contexts. When coupled with design elements intended to facilitate this nurturing experience, greenspace can be transformative for these children.³³

There are nearly 23,000 students with special needs in Allegheny County public and charter schools—over 15% of all students. Of these students, between 2,800 and 3,900 have autism. This amounts to over 12.2% of all students with special needs, higher than the statewide percentage of 10.3%.³⁴

Why Green space is Beneficial to Special Needs Children

Research points to the need for clearly defined green spaces for children with developmental disabilities. Much of the research on outdoor spaces for children with special needs is based on the work of Naomi Sachs, the founder and director of the Therapeutic Landscapes Network, and Tara Vincenta, the founder of Artemis Landscape Architects, Inc. Both are experienced landscape architects who have experience designing spaces for children and adults with special needs. Sachs and Vincenta (2009) acknowledge that there is minimal research “directly examining the impact of natural play environments on children with autism or other special needs,” but they combine different types of research findings to support their recommendations. These findings include:

- General information about autism and related disorders
- First-hand accounts from autistic people and their caregivers
- Research on nature-based play and learning for all children
- Guidelines for playgrounds (including ADA)
- Other safety considerations

33. Gaudion, K., Hall, A., Myerson, J., & Pellicano, L. (2015). A designer's approach: how can autistic adults with learning disabilities be involved in the design process? *CoDesign*, 11(1), 49-69.

34. Pennsylvania Department of Education, Special Education Data Report, December 2015.

35. "Outdoor Environments for Children with Autism and Special Needs" by Naomi Sachs and Tara Vincenta, 2009

Vincenta developed the guidelines in the webinar/article using this research and her personal and professional experiences. These guidelines include tranquility, fencing, smooth, wide pathways with clear edges, no easily ingested materials, orientation maps, shade, transitions between spaces, elements of consistency, sequencing of activities, fixed and non-fixed elements, opportunities for increased socialization, visual aids and signage, soothing areas, opportunities to increase motor skills, coordination, and balance, etc.³⁵

"Special Education Needs (SEN) students have often learned helplessness and passivity because, consciously or not, we as practitioners exert a huge amount of control and [going outdoors] forces us to relinquish that. . . . Giving SEN students that feeling of space, and the sensory stimulation that comes with being outdoors, is absolutely vital." -Andrew Colley, lecturer in special education at the Cass School of Education and Communities, University of East London

"Many children with autism are in highly structured indoor learning environments during their day and may receive great benefits from having meaningful experiences outdoors." -Naomi Sachs, ASLA and Tara Vincenta, ASLA

"All children learn and develop cognitively as well as physically through play, and a growing body of research points to the important role that nature plays in that development. Creating a supportive environment can go a long way in helping children with special needs (and their siblings) experience the world in a meaningful way." -Sachs & Vincenta

Special Needs Students & Green Playces

Through initial conversation with Pittsburgh Public Schools: Program for Students with Exceptionalities, they expressed interest in partnering to build out a space catering to children with autism. The proposed project, called "Green Playces: Possibilities," is envisioned as a special offering of the Green Playces Initiative, and will work with an autism-specific partner to transform vacant land into an asset for the autism, special needs, and larger communities.

DEPTH VS. BREADTH OF REACH

When looking at how to successfully engage children, focusing on the depth of the relationship and activity being performed rather than the breadth of reach leads to successful models of engagement. According to a 2014 article in Edutopia, the following six interrelated elements should be considered to help increase student engagement behaviorally, emotionally, and cognitively, potentially affecting student learning and achievement.³⁶

- Make it meaningful
- Foster a sense of competence
- Provide Autonomy Support
- Embrace Collaborative Learning
- Establish Positive Teacher-Student Relationships
- Promote Mastery Orientations

More positive interactions with children can help shape programmatic outcomes and lead to higher levels of student success. The recommended minimum duration for an effective program is one to two years for the program to have a measurable effect on the population that it is serving.³⁷ Research also shows a significant correlation between high levels of engagement and improved attendance and achievement as measured through direct observations and interviews with children and teachers.³⁸



36. Nicolás Pino-James, PhD. (2014, December 8). Golden Rules for Engaging Students in Learning Activities. Retrieved from <https://www.edutopia.org/blog/golden-rules-for-engaging-students-nicolas-pino-james>

37. Dietal, Ronald. (2009) After-School Programs: Finding the Right Dose. Phi Delta Kappan, Vol. 91, No. 3, pp. 62-64.

38. Roderick, M., & M. Engle. 2001. The grasshopper and the ant: Motivational responses of low-achieving students to high-stakes testing. Educational Evaluation Policy Analysis 23 (3): 197-227.

LESSONS LEARNED IN THE FIELD

Along with the best practices we researched, we strive to consistently grow from our own experience, using our successes and challenges to inform successful growth. As the Green Playces Initiative continues to evolve, we re-assess regularly to determine where our strengths and weaknesses are.

After designing, building, and programming our first eight Green Playce sites, our staff reflected on how we could improve our process to better engage the youth we work with. We found that our engagement is strongest when we:

- **Work directly with existing youth programs.** Rather than creating our own cohorts of students, we have found that embedding ourselves within a youth program increases engagement and leads to long-term success. Having a committed, familiar educator alongside us helps to establish deeper relationships, more quickly.
- **Utilize a youth-driven design process.** We have found that engaging students with design decisions is an empowering process that builds enthusiasm and connection to the site. Doing so increases youth buy-in and thus leads to more successful, sustainable projects.
- **Create a hands-on learning environment.** The Green Playces programming model is more interesting and easier to grasp when youth are learning by “Doing.” Hands-on learning opportunities stand out from more traditional education and build a stronger relationship to GTECH and Green Playce site.
- **Engage with less students, more often.** We found that allowing our staff to have deeper interactions with youth to better provide real-world educational outcomes using people, places and natural environments that surround them every day. When our metrics are focused more on “Number of students reached”, our relationships are shallower and our impact is lessened.

- **Connect youth partners to a larger network.** GTECH is just one organization of many in Allegheny County that offer unique, engaging youth services. Connecting our partnering youth programs and schools to some of those organizations enlivens the Green Playces and ensures their use for years to come.
- **Engage students with place-based education as part of the placemaking process.** This allows GTECH staff to develop relationships with youth and to give students context and buy-in for deciding what kinds of components are appropriate for their outdoor space.





Expanding Green Playces

This section uses kernel density hot-spot maps to provide understanding for where the Green Playces Initiative can develop partnerships in to grow in the future.

39. Strife, S., & Downey, L. (2009). Childhood Development and Access to Nature. *Organization & Environment*, 22(1), 99-122.

40. The Benefits of Environmental Education for K-12 Students. (2016, November 4). Retrieved from <https://naaee.org/eepro/research/eeworks/benefits-environmental-education-k-12>

Expanding Green Playces

Community Needs Assessment

While we recognize that our Green Playce program can not solve all of a community's issues, we view the process and outcomes attached to the program as a starting point for community dialogue. Green Playce sites look to tackle critical issues that affect youth across Allegheny County. There is a common link between neighborhoods that have high levels of vacancy and local environmental justice issues that affect those residents and, specifically, youth in those neighborhoods. A 2009 study by the NIH notes that,

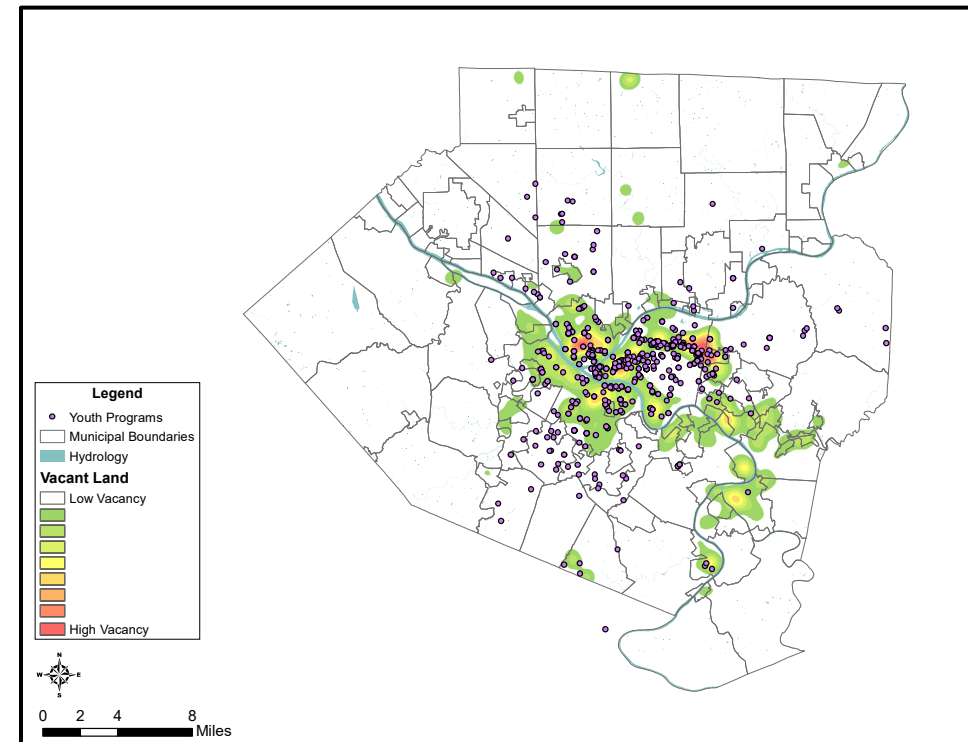
"Although environmental inequality researchers have increased our understanding of race- and class-based environmental inequality in many important ways, few environmental inequality studies ask whether children are disproportionately burdened by environmental pollution or whether poor and minority youth are less likely than their white and wealthier counterparts to spend time in green spaces and the natural world."³⁹

A Green Playce brings creative partnerships and the opportunity for non-traditional environmental education to each community. Engaging youth throughout the process, from the initial design meeting to the maintenance and use of a completed site, the Green Playce provides opportunities for engagement and buy-in from its inception. This is important because, while studies show that students taking part in environmental education programming gained knowledge about the environment, the same studies also made it clear that learning about the environment is just the tip of the iceberg.⁴⁰

Mapping Vacancy

Using a kernel density hot-spot map that details levels of vacancy and youth programs throughout Allegheny County, we have defined criteria that will help us determine where future Green Playce sites and partnerships might be established and ways to expand critical partnerships. This series of maps highlights vacancy through Allegheny County as well as details where Green Playce programs would be beneficial in the future.

Map 2: Allegheny County Vacancy with Youth Programs

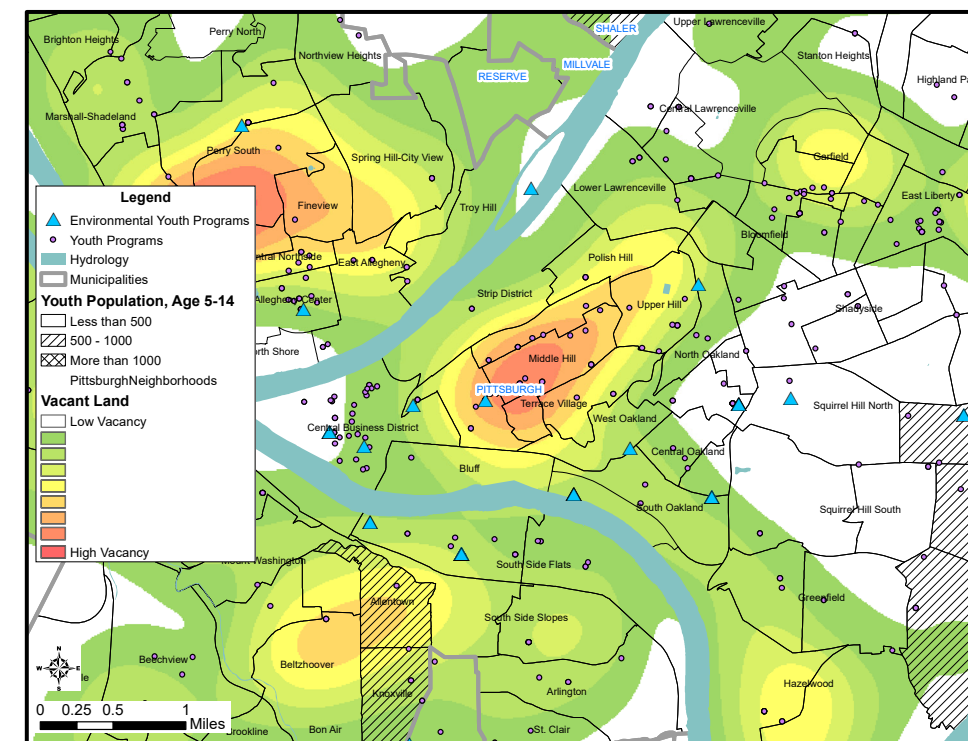


Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Vacant land data from 2016 Allegheny County Real Estate Assessment.

Allegheny County

Vacant land and youth programming are most concentrated in the City of Pittsburgh. Other concentrations of vacant land exist in the Monongahela Valley and sporadically throughout the county.

Map 3: Central Pittsburgh Vacancy with Youth Population and Youth Programs



Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Youth Population from 2015 US Census estimates. Vacant land data from 2016 Allegheny County Real Estate Assessment.

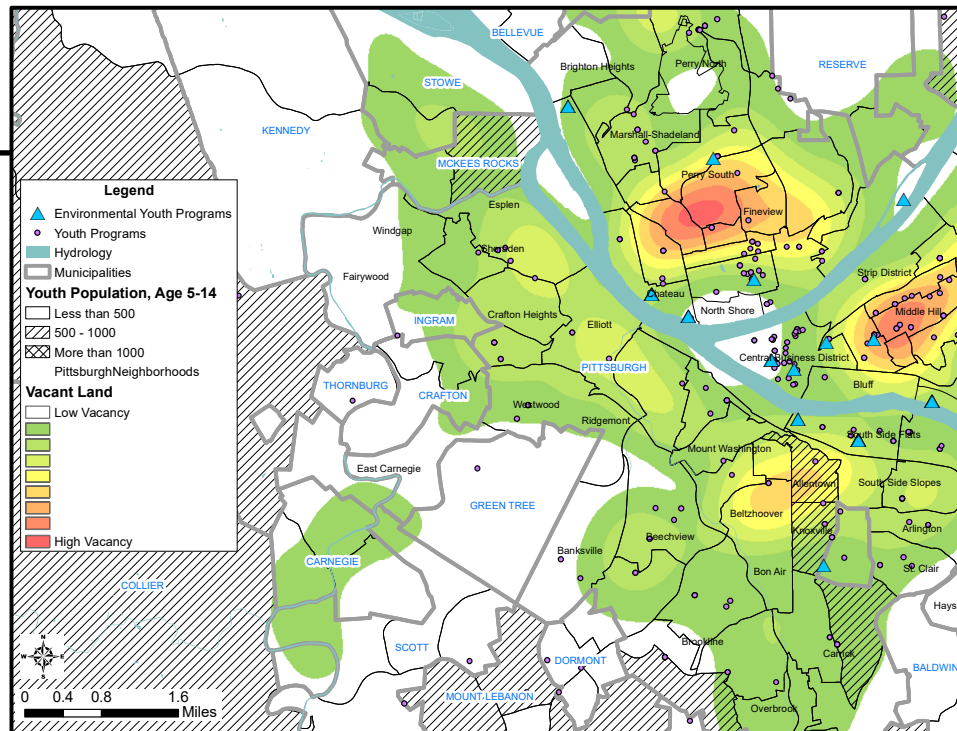
Central Pittsburgh

High number of existing youth programs for potential partnership. High concentration of vacant land in the Hill District neighborhoods. No youth populations over 500 in Central Pittsburgh census tracts.

West Pittsburgh

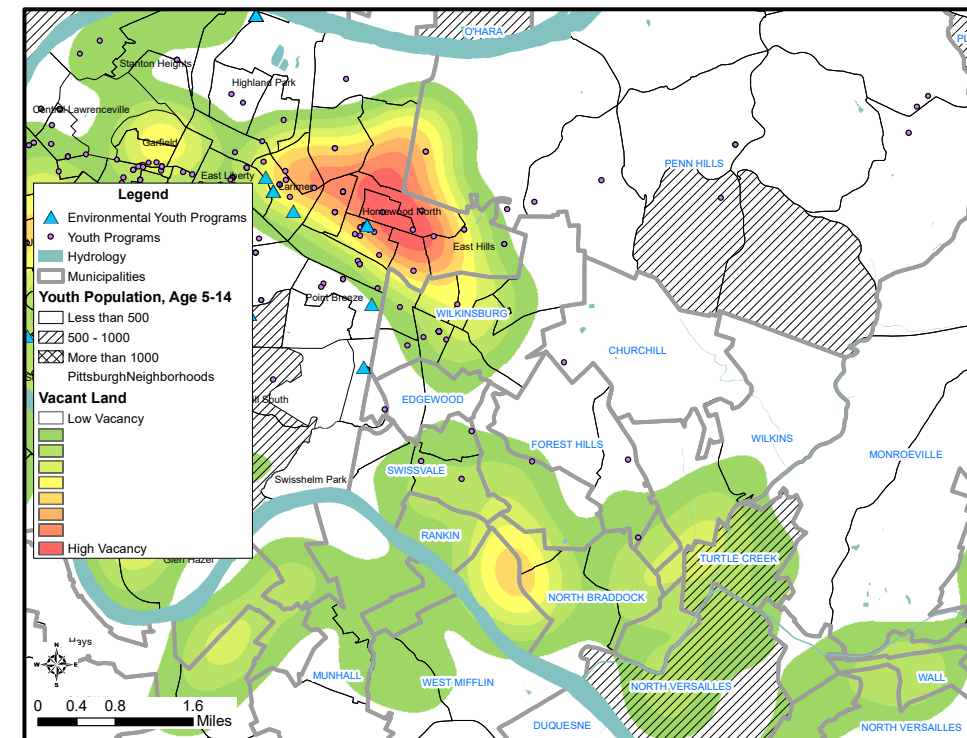
McKees Rocks has a high youth population, no youth programming (as identified by APOST,) and a significant concentration of vacant land. There is moderate vacancy throughout the West End of Pittsburgh.

Map 6: West Pittsburgh Vacancy with Youth Population and Youth Programs



Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Youth Population from 2015 US Census estimates. Vacant land data from 2016 Allegheny County Real Estate Assessment.

Map 4: East Pittsburgh Vacancy with Youth Population and Youth Programs



Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Youth Population from 2015 US Census estimates. Vacant land data from 2016 Allegheny County Real Estate Assessment.

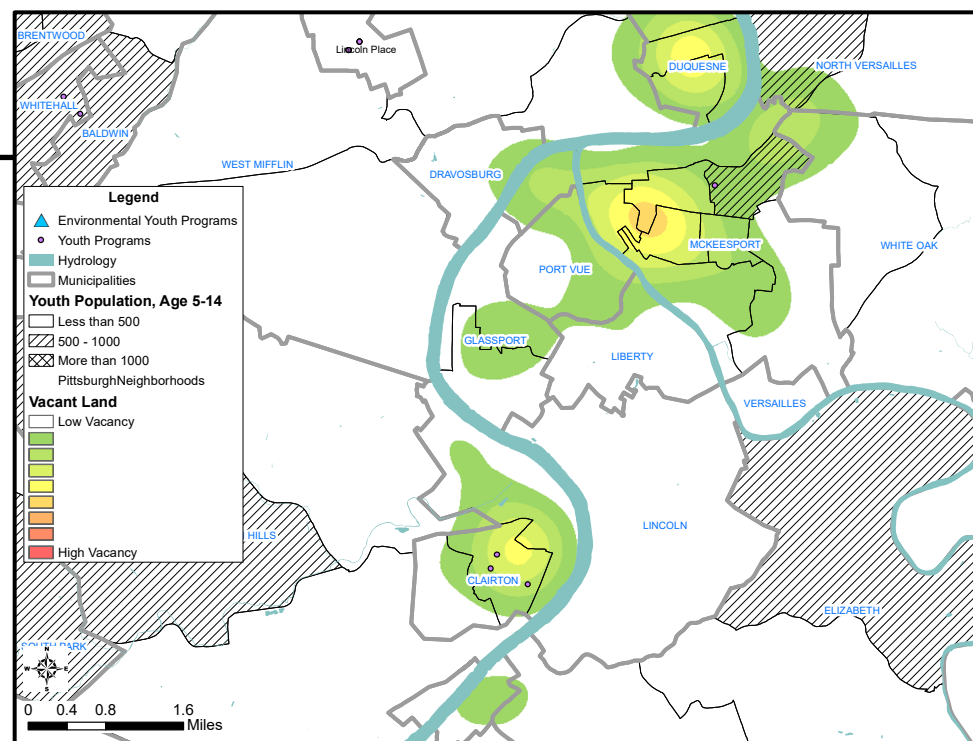
East Pittsburgh

Homewood North is the site of the highest concentration of vacant land in the East End of Pittsburgh. There is a moderate level of vacancy and potential youth partners throughout the East End, from the Garfield neighborhood into the burrough of Wilkinsburg.

Monongahela Valley

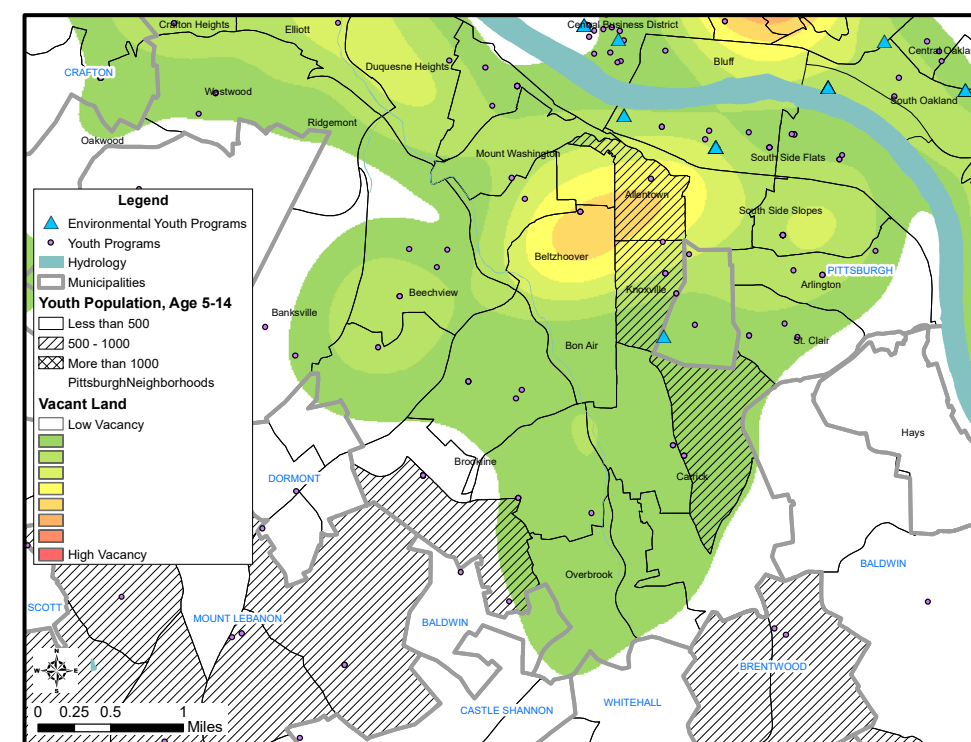
Significant concentrations of vacant land in Duquesne, McKeesport, and Clairton. There is a high youth population in McKeesport.

Map 7: Monongahela Valley Vacancy with Youth Population and Youth Programs



Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Youth Population from 2015 US Census estimates. Vacant land data from 2016 Allegheny County Real Estate Assessment.

Map 5: South Hilltop Pittsburgh Vacancy with Youth Population and Youth Programs



Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Youth Population from 2015 US Census estimates. Vacant land data from 2016 Allegheny County Real Estate Assessment.

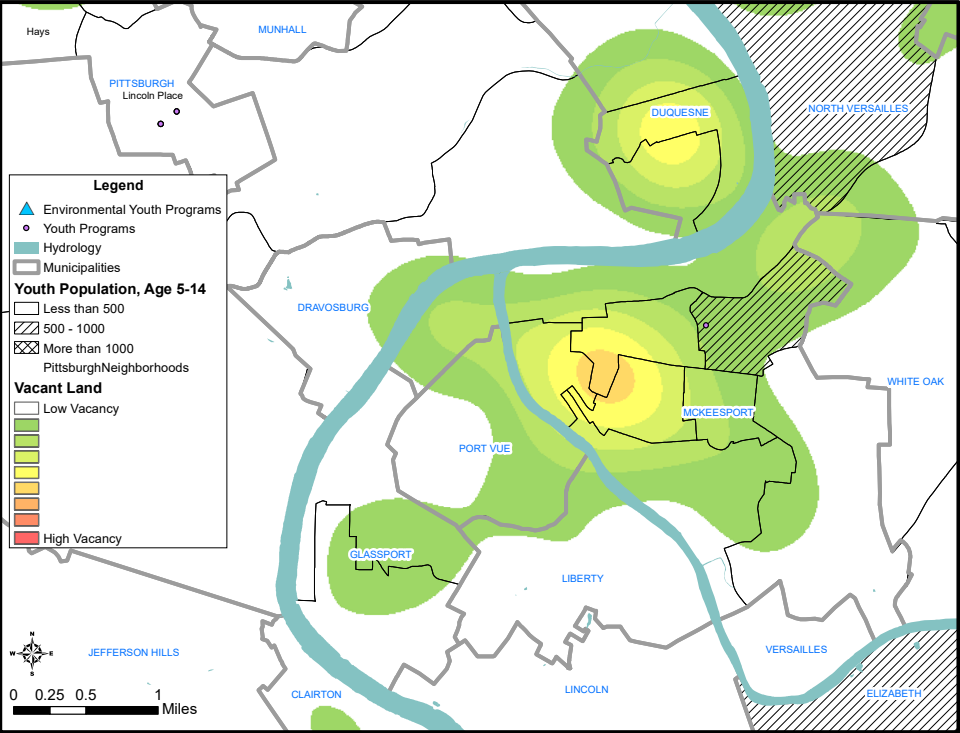
South Hilltop Pittsburgh

Allentown, Knoxville, and Carrick have high youth populations and high to moderate levels of vacancy. There is a significant concentration of vacancy throughout the South Hilltop.

McKeesport Area

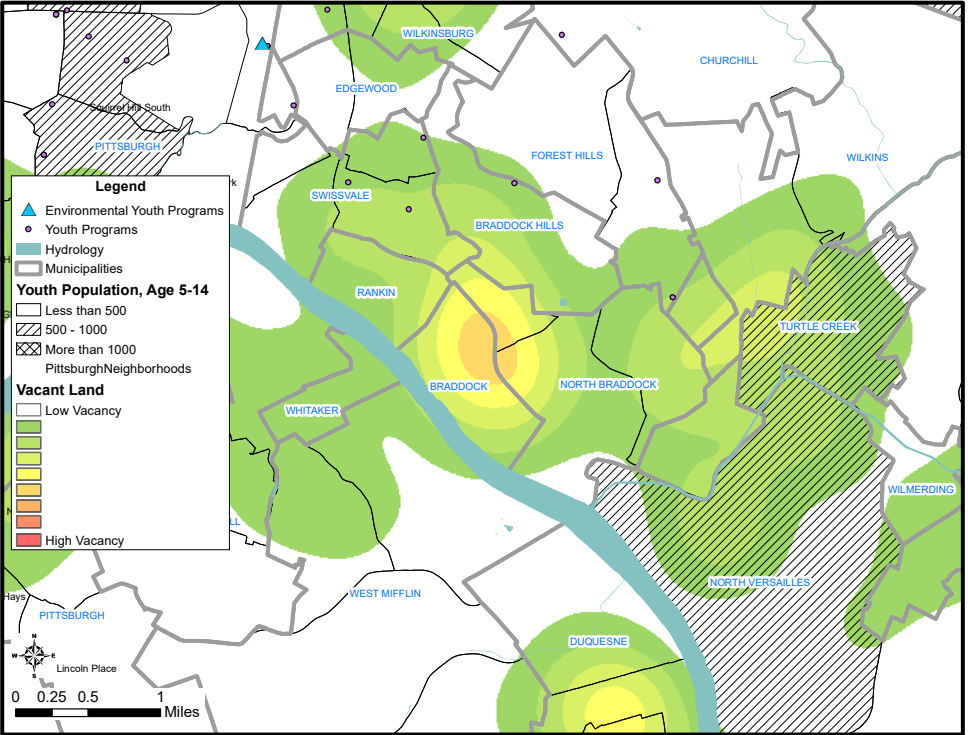
The highest concentration of vacant land in McKeesport is centrally located, although vacant land is present throughout the city.

Map 8: McKeesport Area Vacancy with Youth Population and Youth Programs



Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Youth Population from 2015 US Census estimates. Vacant land data from 2016 Allegheny County Real Estate Assessment.

Map 9: Braddock Area Vacancy with Youth Population and Youth Programs



Source: Youth Programs data from Allegheny Partners for Out of School Time (APOST, 2014) and GTECH. Youth Population from 2015 US Census estimates. Vacant land data from 2016 Allegheny County Real Estate Assessment.



Outcomes

To ensure that our research and experience leads to sustainable, impactful growth, the following section outlines several opportunities to grow, define, and evaluate the Green Playces Initiative moving forward.

Outcomes

To make strong recommendations for the future of Green Playces, GTECH is drawing from extensive research and experience to systematically determine avenues by which the program can continue to grow and make a positive impact. We are using that research and experience to determine how we will approach the Green Playces Initiative moving forward, including the methods behind creating Green Playce sites, the education models that will accompany them, and potential program frameworks that will inform successful and sustainable partnerships and programming:

- A. Our **Growth Models** detail different funding frameworks for the Green Playces initiative that we feel will lead to strong partnerships, creation of supportive and long-lasting sites, and sustainable program growth.
- B. **Placemaking + Youth Engagement** models detail the process by which Green Playce sites are designed, planned, and created, as well as our unique curriculum model that informs what kind of education, play, and experiential learning accompany the Green Playce site before, during, and after it is built.
- C. Our **Green Playce Program Process** details the steps we will take internally and externally with each partnering program to ensure a successful, sustainable project and relationship.
- D. Our **Evaluation** model details how we measure success for each Green Playce project, and what methods we will use before, during, and after each project to determine to what degree we are successfully meeting our goals.

Growth Models

We understand that there are many avenues by which Green Playces can continue to grow and expand its reach. In this report, we highlight three different funding frameworks. The first, our **project-by-project model**, envisions Green Playces growing one project at a time, through varying funding streams. The second, our **multi-year, multi-project model** envisions programmatic funding for Green Playces that would allow us to expand our staff and establish an even more consistent program process. The third, our **permanent partner model**, envisions Green Playces as a program embedded into a larger institution like a school system or after-school network.

PROJECT-BY-PROJECT MODEL

Overview:

In the Project-by-Project model, GTECH identifies a project partner before applying for funding. After selecting a partner and identifying project goals, timeline, and process, GTECH will apply for funding with the selected partner. Project implementation occurs only if funding is acquired, and is variable based on individual grant requirements.

Benefits to working through this model include:

- Youth partners are now connected to an appropriate funder with whom they can continue a relationship after the Green Playces relationship ends.
- The joint project development process creates a closer relationship between GTECH and the youth partner, which could carry through project implementation.

Drawbacks to working through this model include:

- With less security of project funding, partnerships may be established, but funding may not be.
- Green Playce projects will be less consistent due to varying funding sources. Lack of consistency would likely be felt by the partnering staff and youth.
- With less security of project funding, GTECH can not invest in more staff for the Green Playces team, limiting our capacity to spend time developing relationships with youth and staff.

GROWTH MODEL:

PROJECT BY PROJECT

COSTS

Project Management	\$9,000
Administration	\$5,000
Project Staff	\$15,000
Project hard costs	\$10,000
TOTAL	\$39,000

SCOPE

STEP 1:

Partner Identification through GTECH website intake form.

STEP 2:

Joint funding acquisition from local, regional, or national organizations.

STEP 3:

Project implementation, based on funding specifications.

NEXT STEPS TO MAKE THIS MODEL A REALITY:

Identify a list of partners across the region that we can draw from when funding opportunities come up.

GROWTH MODEL:

MULTI-YEAR, MULTI-PROJECT

COSTS (OVER 12 MONTHS)

Project Management	\$8,500
Administration	\$6,000
Project Staff	\$13,500
Project hard costs	\$15,000
TOTAL (PER COMMUNITY)	\$41,000
6 GREEN PLAYCE SITES OVER 2 YEARS	\$255,000

COSTS (OVER 24 MONTHS)

Project Management	\$18,000
Administration	\$8,500
Project Staff	\$18,000
Project hard costs	\$18,000
TOTAL (PER COMMUNITY)	\$62,500
4 GREEN PLAYCE SITES OVER 3 YEARS	\$255,000

SCOPE

STEP 1: Acquire funding for the Green Playces Initiative as a program

STEP 2: Identify partners through application and scoring process

STEP 3: Project implementation over 1-2 years of in-classroom and outdoor build

NEXT STEPS:

Identify a funding source that can sponsor the Green Playces Initiative.

MULTI-YEAR, MULTI-PROJECT MODEL

Overview:

In the Multi-Year/Multi-Project model, programmatic funding is acquired before partners and projects are identified. Funding is for multiple projects over multiple years. Funded partners would work with GTECH over 12-24 months to build capacity in youth program staff and engage months youth and staff to learn about, design, build, and sustain a Green Playce.

Benefits to working through this model include:

- Programmatic funding gives GTECH flexibility to establish a consistent process and to select partners based on our own metrics (rather than metrics coming from funders).
- Youth partners, thereby, are working within a more consistent, more predictable framework.
- Higher levels of funding give GTECH the opportunity to hire more staff, allowing us to spend more time in the classroom and on the Green Playce site after building.

Drawbacks to working through this model include:

- For the youth partner, there is less ownership over the details of the process than if they were part of the development phase.
- For GTECH, it is more difficult to secure and sustain high levels of funding.

PERMANENT PARTNER MODEL

Overview:

In the Permanent Partner model, GTECH would embed itself into the operating budget of a larger organization or network, like a school system, public or private institution, or after-school network. In this model, Green Playce projects would be built at the discretion of the larger institution.

Benefits to working through this model include:

- Work is steady and consistent for both GTECH and the partner
- Site sustainability can be consistent and part of overall operations of the partnering institution
- Consistency of project allows GTECH the opportunity to hire more staff, giving us the capacity to go deeper into projects.

Drawbacks to working through this model include:

- Reach may be limited: GTECH would likely miss smaller, more vulnerable youth programs that aren't tied to the larger, partnering institution
- GTECH would have less ownership of the Green Playces process.

In practice, models can work in tandem with each other. For instance, the Green Playces Initiative could receive programmatic funding that allows us to operate under the multi-year, multi-project model. However, we could still produce projects under the project-by-project model if appropriate funding and projects were acquired.

GROWTH MODEL:

PERMANENT PARTNER

COSTS

Project Management	\$7,200
Administration	\$5,800
Project Staff	\$12,000
Project hard costs	\$20,000
TOTAL (PER COMMUNITY)	\$45,000
6 GREEN PLAYCE SITES OVER 3 YEARS	\$270,000

SCOPE

STEP 1: Establish partnership with institution or organization, draft MOU

STEP 2: Within institution, select project sites and youth program/class partners

STEP 3: Project implementation that is ongoing and defined by partnering organization.

NEXT STEPS TO MAKE THIS MODEL A REALITY:

Establish a partnership with an instution that will embed the Green Playces Initiative into its budget.

Youth Engagement + Placemaking models

Drawing from our research on best practices for placemaking with and for youth, as well as best practices for engaging youth with their outdoor environment, we created two models for youth engagement and placemaking under the Green Playces Initiative. Our placemaking model, called **Green Playce-Making**, draws from arts, sustainability, community, and play to inform our decision-making process. Our youth engagement model, called **Playce-Based Learning**, engages students with localized, environment-based play- and place-based learning opportunities.

GREEN PLAYCE-MAKING

GTECH will approach the creation of new Green Playce sites by following a unique placemaking model that we call Green Playce-Making. This model prioritizes four different factors that determine the process by which each site is designed, planned, built, and maintained:

- **Community:** Putting decision-making power into the hands of youth and community members, Green Playce-Making prioritizes the needs, expectations, and desires of those who will be using the space for years to come. Youth will draw from “Playce-Based Learning” activities to determine the best use for the space by considering who the space is for, what that audience needs, and how a Green Playce can begin to meet those needs.
- **Play:** Each Green Playce will incorporate elements that allow for open-ended play, including natural playscapes, loose parts, and varying levels of terrain.
- **Art:** Art, in its many forms, will be included in both the process and the outcome of each Green Playce site. Art is an essential piece of the design process, and art installations will be included on each site. Creation of art installations will be executed by youth and community, and led by local artists.
- **Sustainability:** Creating Green Playce sites with respect to the environment, we will choose to use re-used, re-purposed, and locally-source materials whenever possible. We will choose native plants that support local ecosystems and decrease the need for maintenance. We feel that these decisions makes sense economically, environmentally, and socially.

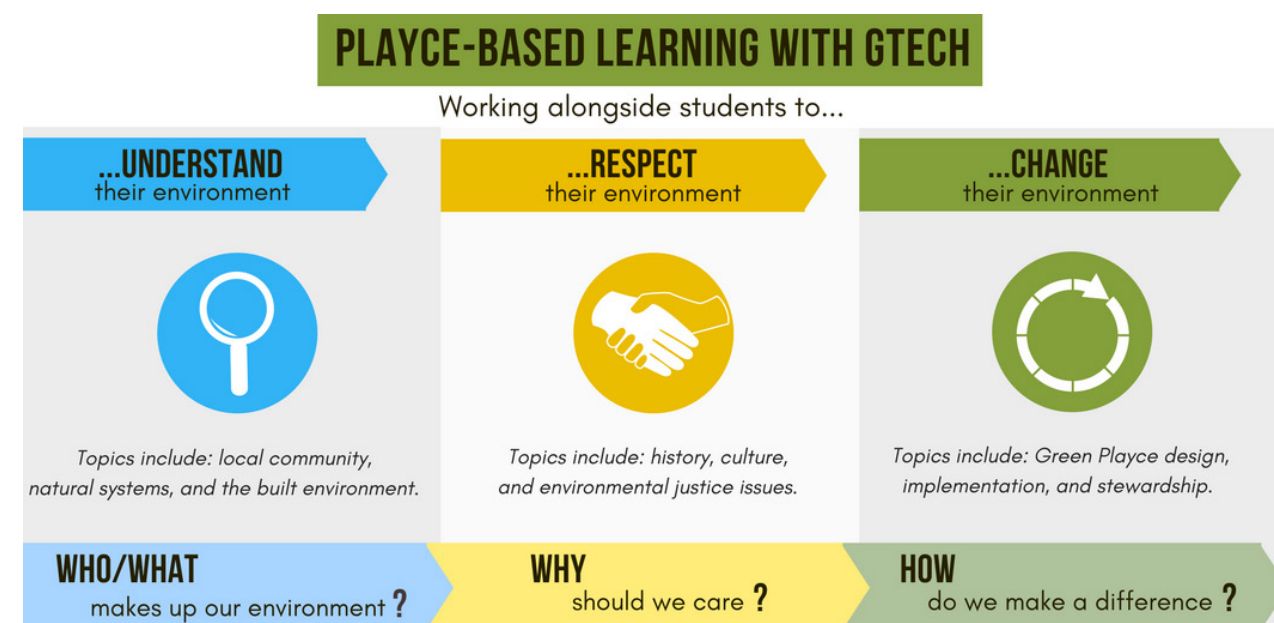


PLAYCE-BASED LEARNING

GTECH seeks to engage youth with their environment through a model that combines play- and place-based learning and establishes strong partnerships to deepen our programming. Through curriculum that can be adapted to any place, Playce-Based Learning with GTECH will encourage students to:

- **Understand their environment:** Through diverse programming, students will investigate the components of their surroundings, including the people, the built environment, and the natural systems that make it unique.
- **Respect their environment:** By exploring the history, culture, and environmental justice issues specific to their community, students will gain deeper respect for their environment's unique assets and challenges.
- **Change their environment:** Using a placemaking model that puts planning, design, and building decisions into the hands of the youth stakeholders, students will work together to create a Green Playce that celebrates and strengthens community. Youth will draw from their new understanding of their environment to make planning and implementation decisions.

Programming before, during, and after the build of a Green Playce can draw from any of these categories at any time. GTECH supports this programming not only by leading initial education, design, and build sessions, but by passing curriculum knowledge to the youth program staff to implement. This ensures that knowledge is retained by the anchor program and able to be replicated beyond GTECH's tenure.



Green Playce Program Process

We recognize and celebrate that each Green Playce project is different. From Green Playce to Green Playce, we work in diverse communities that have needs and interests that are different from one another, with different timelines, different funding levels, and different youth voices at the core. While recognizing this, we also feel it is important to the sustainability of Green Playces that our process is consistent within those variable scopes of work. To establish this consistency, we developed a programmatic process that takes us from application and selection of project partners through the implementation and sustainability of the Green Playce program.

INTERNAL: INTAKE, APPLICATION, AND SCORING

1. **Intake + Application:** The first step in any Green Playce project is to identify the community we will be working in and the partner within that community who we will be working with. Previously, we did so by seeking out interested parties in our target communities after securing funding. Instead, having an intake form on our website that we can distribute to our network and to interested parties will go a long way to ensure that we are aware of who in the county may be interested in participating in a Green Playce partnership. Once funding is secured, we can ask those interested parties to fill out a formal application that will be scored. The application will provide answers that will be used to score applicants

2. Scoring: Replicating our scoring tool used in GTECH Resilience Generation Technical Assistance program, applicants would be scored based on a variety of factors. More detail about this scoring methodology can be found in Appendix D:

i. **Location:** To ensure that the Green Playce network continues to expand and reaches those who need it most, applicants will be scored higher if they are in a community:

a. **With high levels of vacancy:** As discussed in our Mapping Vacancy section, it is important that we prioritize communities where children may not have as much opportunity for something like Green Playces otherwise.

b. **In which we have not worked before:** We want Green Playces to expand through the region. Projects that are in communities where Green Playces have not been built will score higher than projects in communities where we have previously engaged.

ii. **Strength of partner:** Partners will be evaluated based on their:

a. **Staff:** Partners will be scored higher if they have full-time staff who are willing and able to actively engage and communicate with us, and spend time working with us, attending workshops, and taking on the use and stewardship of the site after we leave.

b. **Students:** Programs that have consistent student attendance and commitment will score higher than programs where students are less consistent. This is to ensure that participating youth have the opportunity to fully engage with the Green Playce process.

c. **Land:** Whether through public or private ownership, applicants that have land in mind and access to that land will score higher than applicants that do not. Additionally, organizations that are part of an institution with pre-established site maintenance may signify that the Green Playce site is more likely to be sustained.

Once applications are scored, partners will be selected and we will begin our external programmatic process.

EXTERNAL: PROGRAMMING PROCESS

1. Initiate: In the first stage of the program, we identify some of the specifics of the Green Playce: *What staff will be our main point of contact? Which students will we be working with? On what space will the Green Playce be built?* Once those details are solidified with a Memorandum of Understanding (MOU), we begin our process of working with youth to create a Green Playce.

2. Investigate: In the second stage of the program, we begin to initiate some of our Playce-Based Education tactics to work with our participating youth, community members, and partners to understand the state of the community and its environment. In this stage, we work with our partnering communities to understand: *What can we celebrate in this community? What can we improve?*

3. Create: Using our Green Playce-Making framework, we work together to design, plan, and build a Green Playce site that is sustainable, creative, and beneficial to the local community. In this stage, we work with the youth partner to recruit community-based volunteers.

4. Connect: We connect our partners with a network of environmental and arts-based programs to engage students on the newly created Green Playce site.

5. Celebrate: To celebrate the hard work of our participating youth and the community, we celebrate the newly established Green Playce with a youth-directed party + dedication ceremony.

6. Sustain: Projects are sustained both by maintenance and use. Maintenance guides are provided to youth partners, with demonstration to youth + staff as a part of our process. GTECH will continue to connect youth partners with our programming network until solidified relationships are formed on their own.



Evaluation

Evaluation is a critical component of any GTECH project. For Green Playces, conducting an internal and external evaluation process will ensure that we continue to grow responsibly, meet our goals, and create positive, lasting relationships. When evaluating each Green Playce project, we will examine inputs and outputs that are indicators for strategic outcomes in 4 different project areas: Place, Partnership, Process, and Youth Development. Below, we describe these outcomes. Our evaluation framework can be found in Appendix D.

OUTCOMES

- **Place:** A thriving, utilized, and stewarded Green Playce is created in a space that previously was vacant, under-utilized, or blighted. As a result, the community is perceived as safer, more kid-friendly, and more community-friendly.
- **Partnership:** GTECH and the partnering youth program have an established partnership that will continue past the project completion. GTECH has introduced the partner with a network of organizations that can utilize the Green Playce with students for years to come. GTECH has provided partner staff with knowledge and resources to maintain and program Green Playce.
- **Process:** When the project is complete, both GTECH and the partnering community and organizations feel the process was organized, clear, equitable, and efficient, with youth leading the decision-making. The partnering community has tools and resources to continue the process of bringing about positive community change.
- **Youth Development:** Participating in the Green Playces program gives youth access to the green jobs pipeline, connects them with their outdoor environment, connects them with their community, and increases mental and physical health. Youth in the community have a space for play and learning.

EVALUATION METHODOLOGY

Measuring the inputs and outputs that lead to our projected outcomes will consist of a few different processes:

- **Recording observed metrics:** Some metrics, like volunteer hours, youth participants, and donated goods & services, are tracked throughout the Green Playces process.
- **Survey collection:** Internal surveys and external surveys administered to youth, community members, and partner staff will give us feedback on our process, strength of partnerships, and the strength of the Green Playce to meet community need.
- **Observing trends:** For some metrics that are not quantitative, observation using a checklist protocol will be necessary. This includes objectives like using sustainable source and creating artistic elements of our sites.

Acknowledgements

We are grateful for the eagerness and openness of Green Playces’ initial partnering youth programs and schools for helping us to create a strong foundation for continued growth and success of the Green Playces Initiative.

We would like to thank the Heinz Endowments for their commitment to the Green Playces Initiative since its inception, and for allowing us to pursue responsible, sustainable growth.



Appendix

This section provides supporting materials for the report, including case studies, conferences, and scoring and evaluation frameworks.

The following communities and organizations have reached out to GTECH to discuss possibilities for future Green

Sharpsburg:

- Applied for funding with GTECH as a partner to build out a Green Playce
- All of Us Cares, SNO, Youth Involvement, Municipality Support, Venture Outdoors is on Board, Remake Learning Network
- Technology, Design and Innovation link

Millvale

- Initially reached out to see if Green Playce partnership is an option.

Wilkinsburg

- Pittsburgh Urban Christian School and Wilkinsburg Community Development Corporation interested in a partnership to tackle vacant land in the borough.

Hazelwood

- Link to Playful Pittsburgh Collaborative
- PAEYC Play Trail
- PoorLaw
- Hazelwood Initiative
- Hazelwood Youth Media Justice
- Center of Life

West End-Sheraden

- Church Based, Langley Gym, Library
- Hope for Tomorrow

Boys and Girls Club partnership (multiple locations)

St. Clair (Other Hilltop neighborhoods)

- Hilltop Alliance
- YMCA

Lincoln Lemington

Northside (Upper Slopes)

The Green Playces model was successfully accepted at three conferences, two of which draw a national audience. One of the most interesting takeaways from the conferences is that the Green Playces program draws interest from a range of stakeholders, including not-for-profits, government entities, and schools. Participants are interested in the youth-driven design process while tackling blight in urban communities, and how the site is programmed after build out. While attending the Green Schools conference in Atlanta, GA (2017), 5 conference participants reached out to inquire about partnering with their school or non-profit on a national scale.

2016: Reclaiming Vacant Properties Conference

Location	Baltimore, MD
Session Title	Youth as a Catalyst for Broader and Deeper Community Engagement
Session Type	Breakout Session
Speakers	Aris Stalis Gavin White Ian Brown Vernice Miller-Travis Walker Holmes



Bringing youth to the table isn't just about youth development – it's about bringing to light challenges and solutions that adults otherwise wouldn't see. Giving young voices the opportunity to be heard, respected, and meaningfully engaged is key to ensuring revitalization projects meet the needs of all residents. In this session, participants learned from several different youth engagement efforts on a range of vacant lot projects. Case studies included The Trust for Public Land's park and schoolyard activation work; Aris Land Studio's engagement techniques for the landscape design of future public spaces; and GTECH's Green Playces initiative, which works with youth providers in areas of high vacancy to transform vacant lots into outdoor play spaces and classrooms. The panel was moderated by Skeo Solutions, whose approach to community revitalization work in underserved communities emphasizes equity. Presenters shared lessons learned from the planning and implementation of each project. Participants left with fresh strategies for engaging youth to dream up their own spaces and collaborate on a shared design, while fostering a sense of community and focusing on new partnerships to cultivate creativity and action around vacant lots and underutilized public spaces.

2017: Green Schools Conference and Expo

Location	Atlanta, GA
Session Title	Placemaking: Kids ReClaiming their Environment through Community Design
Session Type	Breakout Session
Speakers	Ian Brown (GTECH), Kristen Golumb (Director of Innovation, Propel Schools)



This session outlined GTECH's diverse and evolving strategies for engaging and enabling youth to dream up their own spaces, collaborate on a shared design and build out their play space or "playce" while fostering a sense of community to cultivate creativity and action around vacant lots. This session also highlights Propel Schools innovative approach to partnership and creative ways to get kids engaged. The Green Playces model has been successful with Propel Schools in realizing the value of place and including the people that improve our neighborhoods on a local and regional scale. The session emphasizes our collaborative process, specifically through a youth based public art project, to support community health.

2016: PCRG Community Development Summit

Location	Pittsburgh, PA
Session Title	It Takes a Village: Addressing Vacancy Through Community Partnerships in Pittsburgh’s Northside
Session Type	Bicycle Tour
Speakers	GTECH, Propel Schools, Lisa Freeman, Diana Bucco



There’s lots to love, because lots need love. And you can see it happening by bike – for free! GTECH’s work with key partners over the past three years, in Pittsburgh’s Northside, has resulted in a community that emphasizes creativity and collaboration while tackling issues such as blight and vacancy.

The bike tour highlighted GTECH’s Green Playces project which was completed in partnership with Propel Schools, as well as 2 of our Ambassador projects completed over the last three years. At the first stop, participants heard our partner Propel Schools discuss community involvement as well as creating an outdoor classroom for their students and how students informed those decisions. The tour participated in a small maker camp, where a piece of artwork was created to install on-site. The second stop was a GTECH Ambassador site, where Diana Bucco - Vice President of the Buhl Foundation – discussed our Ambassador programming, the Northside Asset Mapping project work that’s facilitating a bike/walk transportation trail that highlights key assets in the community. Finally, GTECH Ambassador Lisa Freeman in Manchester spoke about the Ambassador program’s impact on the surrounding neighborhood in addition to the level of community engagement the Manchester Growing Garden has afforded the community. The tour will emphasize the collaborative process to accomplish a powerful neighborhood where community takes shape and people want to live, work and play in the area.

2017: PCRG Community Development Summit

Location	Pittsburgh, PA
Session Title	Green Playces: Enabling Youth Driven Community Development
Session Type	Panel Discussion
Speakers	Ian Brown (GTECH Strategies,) Kristen Alvarez (Holy Family Academy,) Keino Fitzpatrick (Small Seeds Development, Inc.,) Maggie Negrete (Brashear Associatoin)



This session highlighted the Green Playces Initiative from a youth engagement perspective. Attendees heard directly from students from Holy Family Academy as well as representatives from Youth CAST and the Allentown Learning and Engagement Center. The panel walked-through and discussed our partnership, gaining perspective on how Green Playces positively affects students, as well as some of the real-world issues that come up when dealing with youth programming. The session highlighted successes and areas that could be strengthened when engaging youth on community development projects.

GTECH’s Green Playces Initiative worked with key youth partners over the past two years which resulted in communities that emphasized creativity and collaboration, while tackling issues such as blight and vacancy. The Initiative reinforced these place-based investments by leveraging community partnerships. This initiative focused on areas that have high concentrations of vacant land and minimal environmental programming for youth. The six completed projects helped to identify and create community green spaces for local service providers. The session highlighted how to work with youth community organizations to foster creativity and address vacancy in their neighborhoods, while creating impactful places to live, work and play.

Appendix C: National Case Studies

Common Ground (National Model)

Location: New Haven, Connecticut

Mission: To cultivate habits of healthy living and sustainable environmental practices within a diverse community of children, young people, adults, and families.

Why it’s unique: Common Ground is an outdoor learning lab located within New Haven city limits. It seeks to explore urban ecology, develop paths to urban sustainability, an offer opportunities to connect children and families to nature.

Overview of program(s):

Common Ground is an environmental center that offers a variety of environmental education programs. The bulk of their programming consists of field trips, summer camps, seedling program (8-week program for toddlers in nature), and birthday parties. The earned income from their fee-based programs (camps, field trips, and birthday parties) goes towards the weekly open houses, where the public is able to visit and explore for free.

Relevance to Green Playces

Every Saturday, Common Ground is open to the public for free. They facilitate some learning activities but for the most part it is unstructured play and exploration. They typically advertise for this program through Facebook and fliers. When students come on a field trip they will send information home with them about the open houses. Kids will also find out about it because they visit the space for a birthday party and want to bring their families back.

Instructor Model

- Full-time Outdoor Space Manager
- Responsible for education and maintenance/upkeep of the space
- Generally have a broad range of naturalist skills and some experience working with kids. Found that the working with kids component is actually more valuable and important than having an environmental education background. It takes people who are able to work with kids and parents.
- Physically manage the space (order supplies/upkeep), keep the space fresh and interesting, model safe use of the space and monitor safety.
- Sometimes lead a lesson or put out an invitation to play (Montessori philosophy).
- Combination of unstructured & structured time (33% unstructured or 20/60 minutes), this can vary slightly based on the age of the participants.



Challenges:

The biggest barrier they’ve had is funding. They haven’t been able to find a big national funder yet. They might get some for camps/school programs but no one wants to fund the free open days because it is hard to collect data those days and report on the outcomes/benefits. They know that it is successful because they see the same kids coming back. They would like more financial aid for the Seedling Program so that they had a more diverse group (mostly medium-high income, people with stay-at-home moms/dads and nannies).

Successes:

The seedling program (toddlers) has taken off. There are people on the waiting list. It’s intergenerational, grandparents participate with their grandkids. The average retention rate is 1-3 seasons.

Important Lessons Learned:

Common Ground has found that their garden spaces can be very restrictive for the kids, as there are many rules about the space and how the kids can interact with it. They find that the children are engaging most with nature when they have free range to explore, dig, move, and truly interact with the things they see. A garden space is not always the best place for that to occur because observation is not as powerful as open-ended play and hands-on learning. They also learned that parents have a hard time understanding the value of unstructured play and can feel anxious or overwhelmed by seeing their kids given free range to explore. They have found it necessary to educate parents on the value of unstructured play.



Nature PlayScape Initiative (National Model)

Location: Cincinnati, OH

Mission: To enrich lives by inspiring passion for nature through experience, education and stewardship.

Why it’s unique: Cincinnati Nature Center’s Marge & Charles Schott Nature PlayScape is a model of the Nature PlayScape Initiative (NPI). Through this initiative, Cincinnati Nature Center and University of Cincinnati’s Arlitt Child & Family Research & Education Center aim to create a regional model to demonstrate how to effectively use the outdoors for healthy child development. Research tells us that unstructured play in nature is critical to this development—physically, emotionally, intellectually, and spiritually. And because each generation spends less time in nature, it’s never been more important to get kids connected to the earth.

Overview of program(s): The Cincinnati Nature Center is a large nature center that offers a wide-range of programming. Central to the Nature Center’s mission is to inspire a passion for nature in children. Programs for children include classes, field trips, summer camps, and a PlayScape to gives children the opportunity to explore and play freely in nature.

Relevance to Green Playces: The Nature PlayScape resembles the Green Playces model because it incorporates natural features that are designed to facilitate open-ended play and learning. The space creates community around people of all ages being able to enjoy the natural world. The Nature Center strives to create an accessible, interesting, and inviting space that will increase people’s enthusiasm for the environment.

Instructor Model: The PlayScape has experienced a variety of supervision models and been particularly responsive to balancing the needs of its participants while promoting best practice. For example, while there continues to be evidence for incorporating little to no signs or guidance in a playscape, the Nature Center found that absolutely no structure left participants confused and bored. Instead, they’ve opted to provide just enough information and staff support to get children and their families started and figure out how they want to explore the space. Through experience and observation, they organization has come to realize that people need the support in order to fully engage with the space. They currently train their staff and volunteers in nature play and have staff available to watch over the space when it is in use.

Challenges: The Nature Center has tried a variety of creative things to provide funding for its educational programs. Their least successful program has been hosting events in their space. These felt formal and disconnected from their mission.

Successes: The most successful aspect of the Nature PlayScape is the instruction model. Since there was a need for more guidance over the use of the space, the organization invested in understanding what form that should take. They have developed an innovative model that trains staff and volunteers (called PlayScape Ambassadors) in play facilitation. This specialized approach has allowed the PlayScape to take off in success and popularity.

Important Lessons Learned: The Nature PlayScape has identified that their number one priority is to make sure kids walk away with a positive experience in nature. In order to meet this goal, the staff have undertaken specialized training to become play facilitators.

Sunrise Project (National Model)

Location: Lawrence, KS

Mission: Empower people to live healthy, self-determined lives through engagement with food and the environment to build a socially just community.

Why it's unique: The Sunrise Project uses a shared learning model that honors community strengths and offers youth and others a way to take ownership of programs.

Overview of Program(s): The Sunrise Project offers several programs targeted at three age ranges: preschoolers, 5-12, and 12-18. The focus of their programming is to connect youth to food systems as well as learn about activism and social equity.

Relevance to Green Playces: Similar to the Green Playces initiative, where the community drives the process and design, the Sunrise Project centers community's voice in developing green space and programming. This model engages residents from start to finish and enhances the investment

Instructor Model: Although it can vary slightly depending on the group, the Sunrise Project tends to have one adult for every 8-10 youth that they are working with.

Successes: Developing a neighborhood center that will more easily connect youth to green space. The space also includes a workshop and kitchen for more hands-on demonstrations.



Created by the Tri-County Women's Centre and Youth Truth Matters, in partnership with the Nova Scotia Health Authority, and in collaboration with the HeartWood Centre for Community Youth Development. These seven components are aligned with the Canadian Centre on Substance Abuse's (CCSA) Components of Ethical Youth Engagement. ****Please note that it is not practical or reasonable for every organization to implement these components to the same degree.****

R

REAL EMPOWERMENT

Balance of power between youth and adults. * **Engagement is more than tokenism.** * Youth are involved, as much as possible and realistic, in aspects of the program, including planning, implementation, evaluation, management and decision making. * **Youth feel a sense of ownership.** * There are visible impacts from youth participation.

E

ENVIRONMENT IS YOUTH FRIENDLY

Reduced barriers for youth participation and respect youth challenges. * **Location and setting makes it easy to have active and on-going engagement.** * Create a safe, fair and collaborative space. * **Appreciate diversity and build trust.** * Use inclusive language that builds connection. * **Find out what a safe, inclusive environment means to each group.** * Consider including food, music, arts.

S

SUPPORT & GUIDANCE FROM ADULTS

Build trust. **Youth are supported and guided by adults in the activities and to take leadership roles.** * Respect, encourage and actively listen to everyone's ideas. * **Together, create group agreements around behavior, roles, expectations and limits.** * Adults encourage youth to make their own decisions while still providing a high level of support and guidance. * **Youth are encouraged to think critically about their actions and decisions.** * Be flexible and prioritize youth needs.

P

PARTICIPATION IS MEANINGFUL

Participation is enjoyable. * **Youth can be creative.** * Build healthy relationships. * **Participation matches youth's interest, it feels meaningful and significant, and is developmentally appropriate.** * Participation provides youth with a sense of self-worth and value. * **Opportunities for youth to actively engage in different ways according to interests.** * Prioritize and design programs and projects for on-going recruitment and retention of other youth.

E

ESTABLISH GOALS

Goals are SMART: Specific, Measurable, Agreed Upon, Realistic and Timely. * **Establish and achieve SMART goals for the organization or project. Where possible, youth are involved in setting and attaining these goals.** * Youth are supported to establish SMART personal goals.

C

COMMUNITY MATTERS

Outward focus: Youth focus on being in service to community and making a difference in the lives of other youth, the greater community, and natural the environment. * **Space is created within institutions/organizations for youth voice and participation.** * Youth have opportunities to establish connections and build relationships with the community.

T

TOGETHER WE LEARN

Organizations and adults actively build their ability to respectfully engage youth. * **Youth and adults build upon their strengths and learn new skills.** * Youth learn from each other. * Youth support and mentor other youth. * Youth

Appendix D: Scoring + Evaluation Frameworks

Factor	Metric	Scoring
Location	High levels of vacancy	3=Very high vacancy 2=Moderate vacancy 1=Some vacancy 0=Very little to no vacancy in neighborhood
	No previous relationship with Green Playces	2=No previous work with Green Playces or GTECH 1=Previous work with GTECH, but not Green Playces 0= Previous work with Green Playces
Partner: staff	# of full time staff	3= more than 2 full time staff 2= 2 full-time staff 1= 1 full-time staff 0= No full-time staff
	# of full time staff willing to commit to stewardship of this project	2=All full-time staff willing to commit to stewardship of project 1=Some full-time staff willing to commit to stewardship of project 0= No full-time staff willing to commit to stewardship of project
Partner: students	# of students served	3=large program: more than 30 students served 2=medium program: 10-30 students served 1= small program: under 10 students served 0= no students served
	% weekly/daily attendance of students	3= 85%-100% attendance 2= 50-85% attendaance 1= 25-50% attendance 0= 0-25% attendance
Partner: land	Access to vacant or underutilized land	2=Access to suitable land for project 1=Ideas but unsure about access, have access to unsuitable land 0= no access to land, no ideas about land
	Established maintenance structure	2=Full-time landscaping/maintenance staff 1= Part-time landscaping/maintenance staff 0= no maintenance structure present

Appendix D: Scoring + Evaluation Frameworks

Input	Measurement/Indicator	Output	Measurement/Indicator	Outcome	Measurement/Indicator	
Volunteer outreach	Communication with potential volunteers, volunteer dates scheduled	Green Playce is built on multiple volunteer workdays attended by diverse members of the community	# of volunteers, # of volunteer dates	A thriving, utilized, and stewarded Green Playce is created in a space that previously was vacant, under-utilized, or blighted. As a result, the community is perceived as safer, more kid-friendly, and more community-friendly.	Community perception of positivity at Green Playce	PLACE
Green playce-making model		Green Playce meets community need	Survey data		Community perception of safety at Green Playce	
Local artists		Green Playce provides opportunity for play	Survey data + observation		Maintenance plan in place	
Upcycled materials	Cost of donated goods & services	Green Playce provides opportunity for learning	Survey data + observation		Green Playce is utilized by community	
Donated goods and services	# of youth volunteers	Green Playce uses sustainable sources		GTECH and the partnering youth program have an established partnership that will continue past the project completion. GTECH has introduced the partner with a network of organizations that can utilize the Green Playce with students that can come. GTECH has provided partner staff with knowledge and resources to maintain and program Green Playce.	Green Playce is utilized by community	PARTNERSHIP
Youth volunteer force		Green Playce is artistic				
Application and scoring	Score is high	Green Playce partner is satisfied with partnership	Survey data		GTECH remains in contact with Green Playce partner	
Development of partnership between GTECH + selected youth partner	MOU	GTECH is satisfied with partnership	Survey data		Partner utilizes other GTECH resources + network	
GTECH staff time	Measurable data	Green Playce partner expands network	# of new partners, relationships	When the project is complete, both GTECH and the partnering community and organizations feel the process was organized, clear, equitable, and efficient, with youth leading the decision-making. The partnering community has tools and resources to continue the process of bringing about positive community change.	Partner takes advantage of Green Playce network connections for programming	PROCESS
		GTECH expands network	# of new partners, relationships			
GTECH programmatic process: Investigate, Create, Connect, Celebrate, Sustain	All stages of programmatic process are honored	Green Playce partner is satisfied with process	Survey data		Following the RESPECT model, youth voices were leading the decision-making	
Youth voice		GTECH is satisfied with process	Survey data		From internal and external surveys, GTECH and partner are satisfied with the process	
Community voice		Youth are satisfied with process	Survey data	Participating community members feel they could replicate this process on their own	Site is maintained year after year	YOUTH DEVELOPMENT
		Community members are prioritized in process	# of community members present in planning process			
		A stewardship + maintenance plan is put into place	Observed task list			
Youth selection		Consistent youth participation	# of youth engaged, # of repeated youth engagement	Participating in the Green Playces program gives youth access to the green jobs pipeline, connects them with their outdoor environment, connects them with their community, and increases mental and physical health. Youth in the community have a space for play and learning.	Youth feel positive about their engagement with Green Playces	
Education + placemaking curriculum presented at youth program	Observable data	Age- and place-appropriate curriculum and information is distributed	Survey data		Youth in the community have access to play & learning opportunities in the Green Playce	
		Youth participate in the planning process	# of repeated youth attending planning process			
		Youth are introduced to the green economy	Survey data		Youth academic success	