

A group of diverse youth are participating in an outdoor activity on a grassy lawn. Some are sitting on a large white sheet, working on art or science projects, while others are standing and talking. In the background, there is a historic brick building with many windows and trees. The scene is bright and sunny.

KNOW TO GROW

CULTIVATING CLIMATE RESILIENCE THROUGH
YOUTH-LED ART AND SCIENCE INITIATIVES

“I used to think the top environmental problems were biodiversity loss, ecosystem collapse and climate change.

I thought with 30 years of good science we could address those problems, but I was wrong.

The top environmental problems are selfishness, greed, and apathy, and to deal with those we need a spiritual and cultural transformation - and we scientists don't know how to do that.”

-Gus Speth, Environmental Lawyer and Co-Founder of the Natural Resources Defense Council



THINGS YOU MUST KNOW TO CONTINUE TO GROW:

CRITICAL THINKING
MINDFULNESS

COMPASSION

CREATIVE PROBLEM SOLVING

HUMILITY

CONFIDENCE



These projects serve as a platform for mutual aid, fostering dialogue around pressing environmental topics while actively engaging with design thinking, problem solving, and social justice on a local level. By placing students at the forefront of these initiatives, we aim to cultivate confidence in sharing their stories and to equip them with the skills needed to tackle real-world challenges, fostering a sense of collective responsibility and empowerment.



By situating these projects in public space, we provide opportunities for students to be the educators, engaging their families and communities in important conversations. This approach embodies the idea of ground up education where learning extends beyond the classroom and beyond the traditional power structures of education.



Ground up education is a concept that attempts to disrupt the hierarchical structures and limited knowledge channels in traditional education. Ground up education champions a decentralized approach where peer to peer and self discovered is prioritized. Students are encouraged to take their learning outside the classroom and bring it up in conversations with their friends and family.



IDENTIFY SUPPORTS - What already exists in the community? How can this project propel current work forward? What local professionals and organizations can get involved? What networks already exist?

EXPLORE CONNECTION POINTS - Readings + case studies, How can we connect the art, political theory, and real life experiences to researched evidence?

DEFINE PARAMETERS - Understanding the confines of the physical project structurally and pedagogically, restrictions based on space, time, or emplaced by partnered organizations

CREATE A FOUNDATION - Clear values and framing questions - What do we want students to leave this experience knowing? The foundation is a baseline that leaves room for customization based on specific student interest, background knowledge, cultural context, and access.



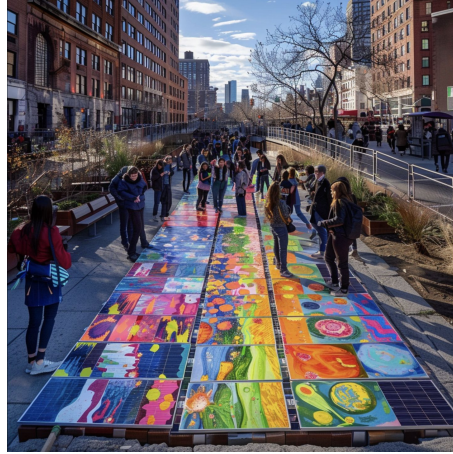
The program is structured to be very collaborative with local environmentalists, teachers, scientists, engineers, government orgs, businesses, and community members rooting the project in the expertise of the local area, highlighting intergenerational learning.



Rainwater Catch Installation - Collecting rainwater is a great way to save energy, to reduce flooding, and support plants, and gardens. Often rainwater receptacles are hidden and forgotten, but creating fun, artistic, and eccentric rainwater collection systems brings recognition to the item.



Shaded Shelter in a Local Garden - Shaded public seating and working areas are pivotal third spaces. Created for use and programming by local organizations, these spaces can be essential meeting areas for neighbors.



Painted Solar Walkway - Solar energy is sustainable, renewable, and plentiful. This project not only enhances the visual landscape but also harnesses renewable energy, contributing to sustainability efforts and serving as a practical demonstration of clean energy solutions.



Public Shading that Attaches to Infrastructure - Urban Heat islands are a major issue where cities are typically 10 degrees hotter than their suburban counterparts. This impacts young, elderly and unhoused comrades. This issue is largely exacerbated by the recent heat spikes in the last couple years.



Defining Success:

Functional Impact: The project results in a tangible intervention that addresses pressing environmental problems in the community

Tangible Student Takeaways: Students leave with real experience, not only working with peers, but in environmental studies, mathematics, engineering, architecture, design principles, and leadership.

Community engagement: Success is evident in the level of community engagement and involvement generated by the project. Students take on leadership roles, teaching and involving their peers, parents, and community members. The program becomes a catalyst for intergenerational learning and collaboration.

Process Oriented Success: While the final product is important success is equally rooted in the process of collaborative problem solving,. Students reflect on their individual growth and understanding in key areas, their reflections demonstrate a deepened awareness of environmental issues and key values.

Long Term Impact: Success extends beyond the duration of the project as students continue to actively involved in environmental advocacy and community work.



KNOW TO GROW