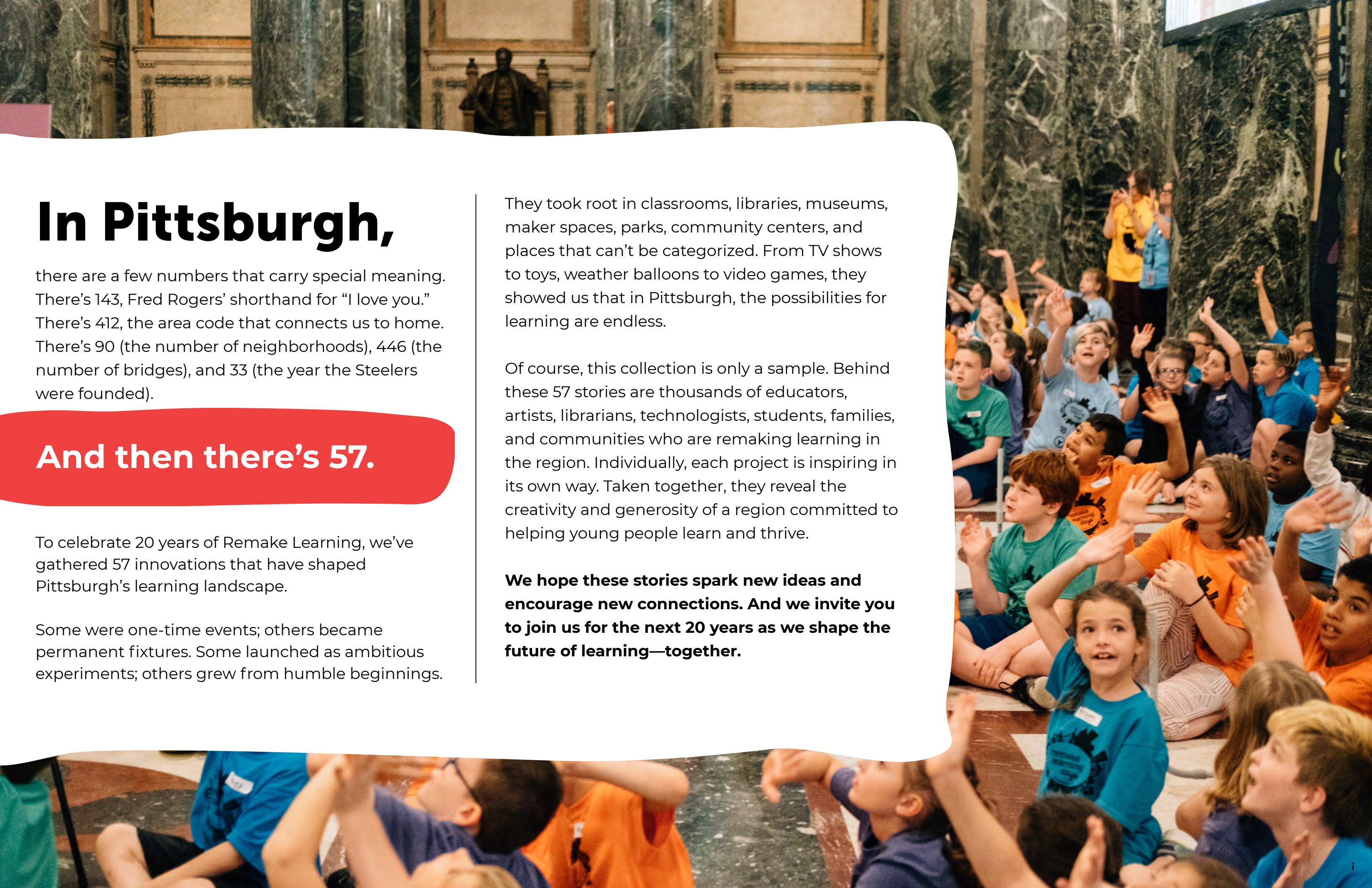


THE 57

Remaking Learning in Pittsburgh and Beyond

remake
learning®





In Pittsburgh,

there are a few numbers that carry special meaning. There's 143, Fred Rogers' shorthand for "I love you." There's 412, the area code that connects us to home. There's 90 (the number of neighborhoods), 446 (the number of bridges), and 33 (the year the Steelers were founded).

And then there's 57.

To celebrate 20 years of Remake Learning, we've gathered 57 innovations that have shaped Pittsburgh's learning landscape.

Some were one-time events; others became permanent fixtures. Some launched as ambitious experiments; others grew from humble beginnings.

They took root in classrooms, libraries, museums, maker spaces, parks, community centers, and places that can't be categorized. From TV shows to toys, weather balloons to video games, they showed us that in Pittsburgh, the possibilities for learning are endless.

Of course, this collection is only a sample. Behind these 57 stories are thousands of educators, artists, librarians, technologists, students, families, and communities who are remaking learning in the region. Individually, each project is inspiring in its own way. Taken together, they reveal the creativity and generosity of a region committed to helping young people learn and thrive.

We hope these stories spark new ideas and encourage new connections. And we invite you to join us for the next 20 years as we shape the future of learning—together.

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#BeTheKindKid

When two first-grade girls had an idea to create an incubator for kindness, they weren't just thinking outside the box—they were rethinking the box entirely, and building something better.

“Students learned that their ideas matter. That failure isn't final. That when adults step back, children step forward.”

— Maureen Frew, Teacher, Avonworth Primary Center



Photo: JAM

What is it?

JAM, named for the first initials of its founders, is a club that creates and sells merchandise—like their trademarked #BeTheKindKid shirts—to benefit charitable causes. The children learn about community needs and use their skills to make a difference.

How did they do it?

- **Acting kind.** After a five-year-old at Avonworth Primary Center declared, “There are bullies everywhere,” a group of first-grade students decided to form a club to craft messages of kindness.
- **Leveraging peer-informed design.** The first graders shared their initial designs with kindergarteners and refined their message so even the youngest children could understand what it meant to #BeTheKindKid.
- **Going viral.** The messages eventually found their way onto a t-shirt that became popular throughout the school and among parents and community groups.
- **Growing organically.** A request for 5,000 shirts turned a classroom idea into a broader movement.

What did they learn?

- **Failure isn't final.** When a set of hand-crafted hair barrettes falls apart, for example, the teacher helps students discover—and fix—the fault.
- **Say yes to kindness.** An authentic, student-led focus on kindness makes it easier for other schools to embrace. The project now touches more than 50 schools.
- **It takes all kinds.** Students who struggle in traditional academic settings often blossom in this entrepreneurial environment, becoming the standard-bearers for innovation.

How might you do it, too?

- **Community needs vary dramatically.** While the core principles of student ownership, kindness-centered action, and authentic problem-solving remain, each club reflects the unique character of its community.
- **Start simple.** All it takes is a club guide, monthly activities, \$250 seed money, and perhaps a button maker. If the club scales, establishing a separate nonprofit can eliminate many bureaucratic barriers.

Problem
Solving

Self-
Expression

Learning
Keywords

Leadership
& Advocacy

Community
Connection



Learn more at
<https://bit.ly/4eli5dn>



AHN Suburban and Northgate School District

When a health network partnered with a school district to revitalize a shuttered hospital building, they dramatically expanded students’ horizons.

“We want every student to have a work-based experience. Four or five years ago, most of our kids didn’t know what their next step was. We want to make sure that all kids, when they cross that [graduation] stage, know what they’re doing.”

— Jeff Evancho, Director of Partnerships and Equity, Northgate School District



Photo: Remake Learning



What is it?

AHN Suburban is a community revitalization project that transformed a closed hospital into a thriving hub for education, healthcare, and workforce development. Students from nearby Northgate School District learn alongside startups, researchers, and entrepreneurs co-located in the building.

How did they do it?

- **Sharing physical space.** Dr. Jeff Cohen of Allegheny Health Network invited Northgate School District Superintendent Dr. Caroline Johns to occupy space in the former hospital, creating a foundation for collaboration.
- **Starting small.** Educators began with afterschool programs and summer camps, testing possibilities before expanding the model.
- **Building an ecosystem.** Jeff Evancho, the district’s director of partnerships and equity, steadily cultivated relationships with AHN Suburban’s tenants, forming partnerships that connected students to real opportunities like priority access to the workforce development program BotsIQ, which is co-located in the building.
- **Learning in context.** With more than 25 businesses on site, students engaged directly with med-tech, food service, and assistive technology companies, experiencing authentic career pathways.

What did they learn?

- **Partnerships are complex.** Competing interests and financial constraints can make partnership opportunities difficult. Not everything pans out, but the work of building relationships continues.
- **Proximity creates opportunities.** Physical co-location in the building generates organic learning that traditional school settings can’t replicate. Students are exposed to things simply by sharing space with diverse businesses.
- **Small can be beautiful.** “When you’re small, you can move fast, and you can fail forward fast. We can take greater risks,” says Evancho.
- **Authentic learning matters.** The authentic integration of student skills through real-world experiences—rather than simulated classroom activities—allows students to learn by participating in actual business operations alongside professionals.

How might you do it, too?

- **Start with existing assets.** Rather than building from scratch, identify underutilized buildings or spaces that can serve multiple community needs simultaneously.
- **Design for win-win.** Create arrangements where all parties benefit, whether through mission alignment, reduced costs, or increased access to resources, especially when working with financial constraints.
- **Prioritize authentic work environments.** Rather than simulating workplace experiences in school settings, co-location offers real exposure to diverse career paths through daily interaction.
- **Build trust systematically.** Community challenges often stem from broken trust, requiring collaborative solutions that rebuild confidence through demonstrated success.



Learn more at
<https://bit.ly/447z0oB>



Attack Theatre

Rooted in reflection, investigation, and imagination, Attack Theatre treats movement as essential to living and learning.

“Some may say, ‘Sit on your hands.’
We say, ‘Take a hand out! Take another
hand out! Swirl your hands around!’”

— Michele de la Reza, Co-Founder, Attack Theatre



Photo: Remake Learning

What is it?

Attack Theatre is a dance company that uses movement and dance to enhance problem solving, build interdisciplinary connections, develop communication skills, explore abstract thinking, and nurture creativity. The company’s arts education programs reach approximately 5,000 students, teachers, and community members each year.

How did they do it?

- **Movement as method.** Attack Theatre reframed student energy as a learning asset, using movement as a tool for engagement rather than something to suppress.
- **Dancing across disciplines.** Attack Theatre works with teachers across subject matter to uncover new ways to integrate the arts into the curriculum.
- **Learning by doing.** Workshops position everyone in the room as learners, encouraging exploration, collaboration, and embodied understanding.
- **Reflective evolution.** The strategies evolved from informal noticing to multimodal reflection and assessment, capturing learning outcomes and demonstrating impact.

What did they learn?

- **Creativity is a life skill.** Students discover that iterative, creative thinking isn’t limited to art class. It can be applied to any subject area, expanding their approach to problem solving and project-based learning.
- **Documentation enhances impact.** Documentation became as important as the movement activities themselves, turning momentary experiences into deep, transferable learning.
- **Teachers are learners, too.** When educators experienced the pedagogy themselves, they became advocates and collaborators rather than just observers, amplifying the program’s reach and sustainability.

How might you do it, too?

- **Invest in educator development.** The most sustainable programs train teachers alongside students, creating internal advocates who can adapt and continue the work. Professional development that engages educators as learners proves more effective than prescriptive curriculum packages.
- **Document and reflect systematically.** Integrating movement-based assessment and reflection within programming creates opportunities for self-expression and meaning-making while deepening learning outcomes.
- **Remember that movement enhances learning.** As co-founder Peter Kope explains, “We don’t provide a brain break. We provide a different way of learning. The brain is part of the body, and the body is part of learning.”



Learn more at
<https://bit.ly/45VavfB>



Aviation Academy

A teacher’s passion for flying became a launchpad for student possibility. Aviation Academy helps students explore careers they may never have imagined were within reach.

“Kids don’t know what they don’t know. That’s why exposure to all of these things is so important.”

— Jenna Whitney, Director of Innovation, South Allegheny School District



Photo: South Allegheny School District



What is it?

Aviation Academy at the South Allegheny School District introduces students to aviation through flight simulators, career exploration, and hands-on learning.

How did they do it?

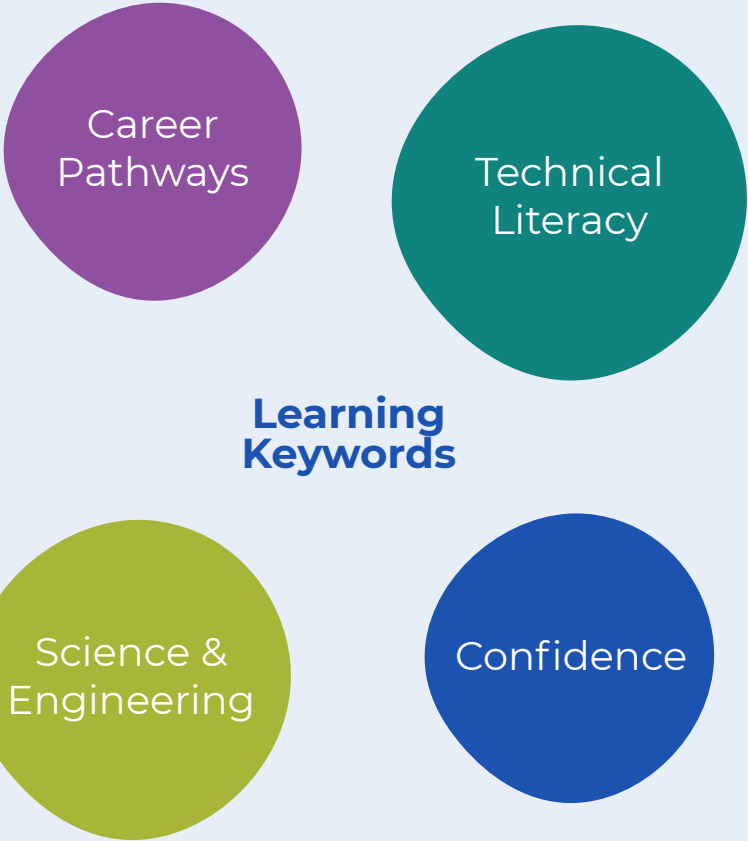
- **Building from teacher passion.** With support from school leadership, teacher Tim Rishel transformed his personal interest in aviation into a student learning pathway.
- **Leveraging seed funding.** A Remake Learning Moonshot grant funded immersive flight simulators and transformed the classroom into a realistic aviation environment.
- **Partnering for curriculum.** The academy adopted the Aircraft Owners and Pilots Association’s free aviation curriculum, allowing staff to focus resources on student experience and program development.

What did they learn?

- **Exposure reveals possibilities.** Students are more likely to pursue careers once they understand how to attain them.
- **Physical space affects learning.** Transforming classrooms into immersive spaces increased students’ excitement, engagement, and sense of possibility.
- **Trust encourages innovation.** Administrative support created conditions where teachers felt empowered to propose ambitious ideas.
- **Try, even if you might fail.** Exploring unfamiliar fields helps students discover hidden interests and unexpected career paths.

How might you do it, too?

- **Build on enthusiasm.** Programs rooted in genuine passion are more likely to sustain energy and engagement over time.
- **Develop fundraising capacity.** Help educators identify grants and navigate proposal writing so that strong ideas can move forward.
- **Design for broad exposure.** Rotation models allow students to sample a wide range of career possibilities.
- **Cultivate a culture of “yes.”** Create conditions that encourage ambitious ideas. Success inspires colleagues.



Learn more at
<https://bit.ly/4v3Mm1l>



Boxes of Joy

During one of the most uncertain summers in modern history, Boxes of Joy delivered something powerful to thousands of children across Pittsburgh: delight, connection, and care.

“If you have good people around you, you can do incredibly difficult things, even if nobody else is doing them and everybody says it’s impossible.”

— Josh Whiteside, Executive Director, The Education Partnership

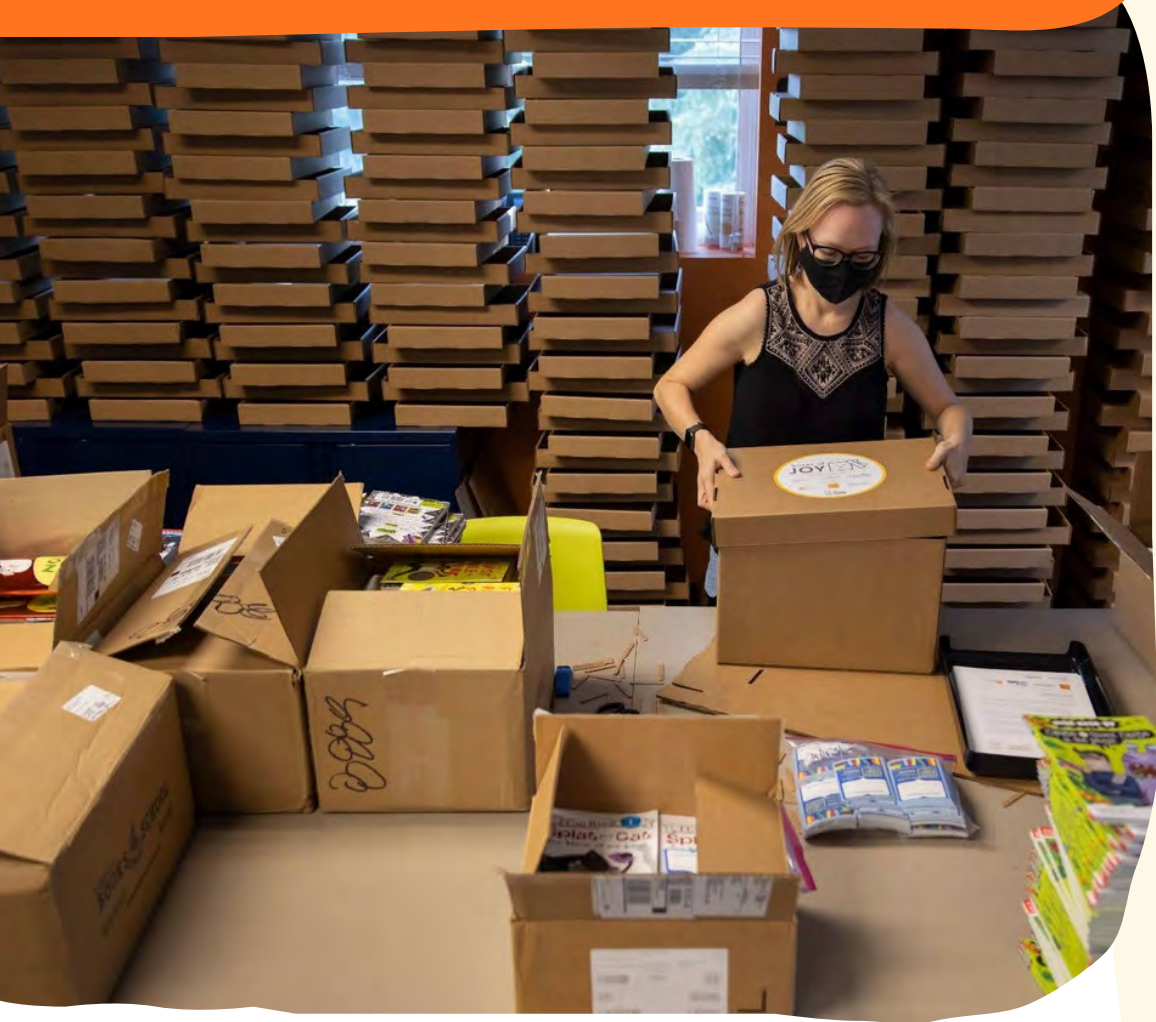


Photo: Joshua Franzos for The Pittsburgh Foundation



What is it?

Boxes of Joy was a collaborative summer initiative launched during the early days of the COVID-19 pandemic. Distributing thousands of activity kits to children across the Pittsburgh region, the initiative—organized by The Education Partnership and community partners—provided books, creative materials, and hands-on activities designed to spark joy.

How did they do it?

- **Responding quickly to a clear need.** Organizers focused on creating joyful summer experiences for children during the uncertainty and isolation of the pandemic.
- **Building complementary partnerships.** The Education Partnership managed operations while partners like the Children’s Museum of Pittsburgh and Reading Is Fundamental provided content, staffing, and distribution.
- **Standardizing for scale.** After initial experimentation, the team developed a consistent model that allowed for rapid assembly and distribution.
- **Adapting spaces for new functions.** The Education Partnership transformed its empty STEAM Hub into a warehouse-style production line capable of assembling thousands of kits under pandemic constraints.
- **Working in waves.** After an initial large shipment, the team paused to assess its process, budget, and capacity, then completed a second wave based on what they’d learned.

What did they learn?

- **Joy is not a luxury.** Moments of delight are as important as academic support, especially during periods of crisis and disruption.
- **Trust fuels collaboration.** Strong partnerships depend on rapid decision-making, shared responsibility, and confidence in each partner’s strengths.
- **Tangible help sends a message.** Physical boxes reminded isolated children and families that their community still cared about them.
- **Crises can catalyze relationships.** The intensity of the project deepened partnerships that continued beyond the immediate emergency response.

How might you do it, too?

- **Focus on one urgent need.** In fast-moving situations, a clear and achievable goal can create momentum and shared purpose.
- **Let partners lead from their strengths.** Collaborative projects work best when responsibilities align with each organization’s expertise and capacity.
- **Standardize first, then scale.** Consistent systems make it easier to scale quickly without exhausting staff and volunteers. Figure out what works every time, then repeat.
- **Treat joy as a meaningful outcome.** Fun, creativity, and care can provide stability and connection during difficult times.



Learn more at <https://bit.ly/4aBIfRB>



Building a Positive School Climate

The Consortium for Public Education’s Building a Positive School Climate cohort helps districts create “house systems” where all students feel safe, accepted, and valued.

“We connect K-12 education with opportunities, resources, and partnerships designed to help students prepare for their futures.”

— Jackie Foor, Executive Director, Consortium for Public Education



Photo: Consortium for Public Education



What is it?

Founded 40 years ago, the Consortium for Public Education emerged as a critical resource for helping learners access the opportunities, resources, and experiences they need to be ready for their futures—including public schools where every student belongs.

How did they do it?

- **Learning from proven models.** After attending a regional site visit to the Ron Clark Academy in Georgia, the Consortium designed an ongoing support program to help districts adapt—and build upon—the academy’s renowned “house systems” model.
- **Supporting adaptation, not just imitation.** Districts didn’t adopt the Ron Clark model wholesale; rather, each cohort member shaped its own “houses” around the goals and values of its communities.
- **Structuring collaboration.** Cohort meetings, school site visits, and regular check-ins allowed districts to share strategies, troubleshoot challenges, and learn directly from each other’s school communities.
- **Persisting past the funding.** When initial grant funding ran out, strong district interest convinced the Consortium to keep the cohort going rather than let the work end.

What did they learn?

- **Belonging changes outcomes.** One school district in the cohort cut disciplinary referrals by 74 percent, freeing up instructional time and helping students feel safe enough to take academic risks.
- **Peer learning accelerates progress.** Site visits and cross-district conversations let teams borrow proven strategies instead of solving the same problems from scratch.
- **Culture shifts outlast the cohort.** Educators report improved morale, stronger retention, and deeper collaboration—benefits that persist well after a single cohort year ends.

How might you do it, too?

- **See possibilities firsthand.** An in-person visit to an inspiring model can build a shared conviction that no memo or slideshow can replicate.
- **Begin with belonging.** Ground your work in helping learners feel seen, valued, and connected; gains in attendance, behavior, and academics tend to follow.
- **Build an experience, not a program.** Rather than one-off training sessions, give participants ongoing chances to visit, question, and learn from each other.



Learn more at <https://bit.ly/4goiA25>



Carnegie Mellon University

Since 1900, Carnegie Mellon University has been the Pittsburgh region's front door to the future, seeding creativity, collaboration, and a can-do approach to solving impossible problems.

“Our strength has always come from the same place: working at the intersections of disciplines—especially at the nexus of technology and humanity—to turn ideas into impact.”

— Farnam Jahanian, President, Carnegie Mellon University



Photo: Remake Learning



What is it?

One of the world's leading universities combines cutting-edge research with cross-sector experimentation, leading to life-changing breakthroughs. Even without a school of education, the university's programs, people, and partnerships have helped to create the innovative, dynamic regional learning landscape for which Western Pennsylvania is known around the world. Its pioneering initiatives push the boundaries of interactive media (at the University's Entertainment Technology Center), bring computer science to learners worldwide (via the CS Academy), and work to make learning more joyful and effective (at the Center for Transformational Play).

How did they do it?

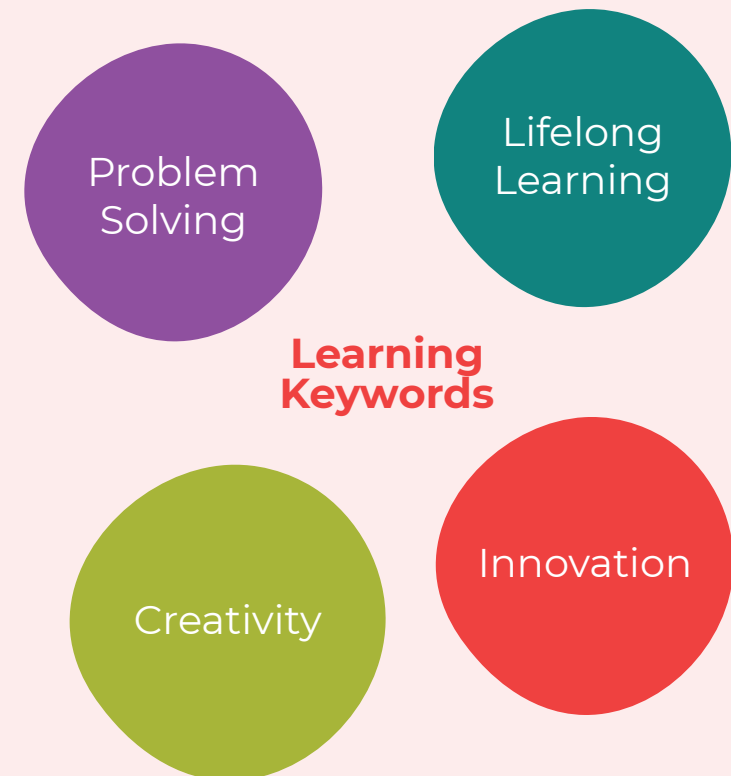
- **Making big bets.** For more than a century, the university has made bold investments in big ideas, from founding one of the nation's first computer science departments to building one of the world's first autonomous cars. Its Human-Computer Interaction Institute, for example, helped to create everything from the “internet of things” to the emoji.
- **Reaching out.** The university works with K-12 classrooms, community colleges, workforce development programs, and others through a mix of high-tech tools and face-to-face relationships. The Simon Initiative, for example, brings the university's resources to bear on measurably improving student learning outcomes.
- **Going global.** Enrolling more than 16,500 students and 1,600 faculty from more than 130 countries, the university brings the world's most promising learners, scholars, and ideas to Western Pennsylvania.

What did they learn?

- **Interdisciplinary collaboration multiplies impact.** Combining science and technology with the arts and humanities can help teams solve problems that no single discipline could solve alone, leading to projects like NoRILLA: a patented, AI-powered, mixed-reality educational system that bridges physical and virtual worlds to improve STEM learning.
- **Invest in infrastructure.** The university's hubs for robotics, artificial intelligence, interactive entertainment, and more ensure that projects uplift communities and respond to real-world needs. The university's CREATE Lab, for example, leverages technology to tackle society-wide concerns, from air quality to child-caregiver communication.
- **Lean into the learning sciences.** University researchers explore how artificial intelligence, immersive environments, and large-scale analytics can support learning.
- **Learning happens everywhere.** The university's partnerships with communities, civic institutions, and industries ensure that learning leads to impact—and that the entire region can benefit.

How might you do it, too?

- **Break down your silos.** Pair technical expertise with the arts, humanities, and community voices. The friction between disciplines is often where useful ideas and intriguing experiments can surface.
- **Embrace the impossible.** Projects that sound far-fetched on paper are often the most engaging to learners—and fertile ground for breakthroughs.
- **Leverage your region as a lab, not just a location.** Partner with local schools, employers, and institutions to test your work against real needs and deliver meaningful impact.
- **Plan for the long haul.** Big transformations take decades, not quarters. Design programs and structures that support long-term innovation.



Learn more at
<https://bit.ly/3UjzmHe>



Cartoon Academy

When art classes disappeared, one cartoonist picked up a marker and hit “record.” What followed turned living rooms into studios—and showed kids that anyone can learn to draw.

“Do you draw? Then you’re an artist. Don’t wait until you grow up. Call yourself an artist because you are an artist. Be proud of what you do.”

— Joe Vos, Creator, Cartoon Academy



Photo: WQED

What is it?

Cartoon Academy began as a YouTube show during the COVID-19 pandemic and has grown into a nationally distributed PBS series. Hosted by cartoonist Joe Vos, the program teaches visual literacy and communication through simple, accessible lessons.

How did they do it?

- **Starting simple, staying consistent.** Cartoonist Joe Vos launched Cartoon Academy as a daily YouTube show, using a simple format to teach drawing and build a loyal audience during a time of remote learning.
- **Seizing the moment.** Recognizing demand for accessible art instruction, Vos connected with WQED, Pittsburgh’s community television station, turning a grassroots effort into a professional production with family and community support.
- **Keeping the essence through growth.** As the show scaled from a home setup to a multi-camera studio, it maintained its focus on approachable drawing, humor, and clear instruction.
- **Mixing and matching.** Episodes were structured in modular segments, allowing content to work as short online lessons and as full-length broadcasts for PBS affiliates.

What did they learn?

- **Trust the learner.** Vos found that audiences responded best when they were treated as capable and knowledgeable, using real vocabulary and concepts rather than simplifying or watering down.
- **Pacing takes practice.** Without live feedback, pacing became critical. The team had to intentionally structure lessons so that viewers could follow along independently.
- **Visual literacy is a skill.** In a media-saturated world, students are rarely taught how to interpret and create images, making visual literacy a central (and often overlooked) skill.
- **Interactions build identity.** Small, affirming gestures can build student confidence and help young people see themselves as artists.

How might you do it, too?

- **Just do it.** Don’t wait for permission or perfect conditions. Vos didn’t have WQED lined up when he started the show on YouTube. He just began. “Every one of us is in control of our own narrative,” says Vos.
- **Be nimble.** Have a dream and decide on your mission, but be ready to pivot. When YouTube wasn’t enough, for example, Vos contacted WQED. When new media called for different formats, Vos moved beyond his initial model.
- **Learn from Mister Rogers.** “Tell people you’re proud of them,” says Vos. As a children’s performer in Pittsburgh, Vos feels called to live up to Fred Rogers’ legacy.

Self-Expression

Artistic Practice

Learning Keywords

Creativity

Communication



Learn more at
<https://bit.ly/3PYf5Fw>



Children's Innovation Project

What might innovation look like with young children? Teacher Melissa Butler and artist Jeremy Boyle set out to reframe innovation in the context of early learning.

“Innovation is finding something new inside something known. Generally, the less innovative a material looks, the more it will allow innovative thinking from the child.”

— Melissa Butler, Co-Founder, Children's Innovation Project



Photo: Remake Learning

What is it?

The Children's Innovation Project began in Melissa Butler's Pittsburgh Public Schools kindergarten classroom and grew into a multi-year initiative supporting teachers across the district. Rather than providing endless materials and choices, the project intentionally constrains resources to simple wooden circuit blocks in order to encourage wondering, creativity, and persistence.

How did they do it?

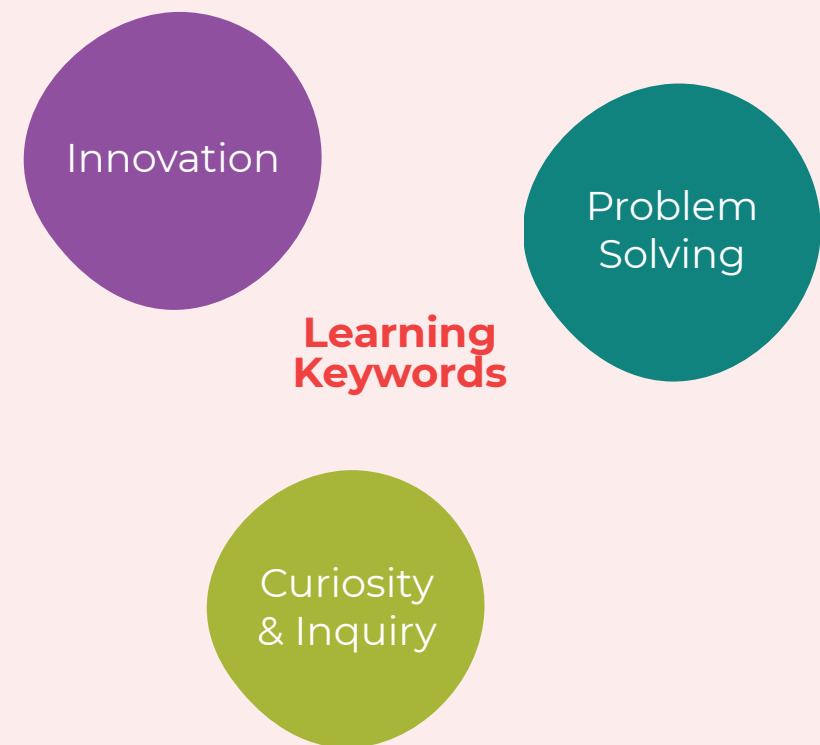
- **Asking authentic questions.** The project grew organically from a teacher and an artist who wondered: What might innovation look like with young children? What new questions might surface as the learning process unfolds?
- **Using constraints as catalysts.** The project team created materials and experiences that deliberately caused children and educators to slow down, wonder, and persist through challenges.
- **Training teachers.** Butler worked directly with teachers to help them notice student learning patterns, asking questions like, “When you give students one battery block versus two, what happens with the learning?”
- **Building partnerships.** The project collaborated with Pittsburgh Public Schools, the Children's Museum of Pittsburgh, the Fred Rogers Institute, and other organizations while preserving the project's core approach.

What did they learn?

- **Less is more.** Limiting materials and choices can spark innovative thinking, while endless options and complex tools can prevent deep engagement and creativity. Children and educators need time and space to be themselves, make discoveries, and follow their genuine interests. “When you focus on small and when you focus on slow, then you get depth,” Butler says.
- **Curiosity breeds innovation—and vice versa.** The most powerful learning happens when educators and children remain curious rather than rushing to answers or solutions. Both children and educators flourish when trusted to generate questions, solutions, and innovations from their own knowledge and experiences.
- **Form often hides function.** Many modern technologies obscure their inner workings, preventing deep understanding. Analog materials and “open” technologies support functional literacy.

How might you do it, too?

- **Focus on process over product.** Prioritize understanding and supporting the learning process.
- **Create communities of practice.** Establish ongoing relationships for shared inquiry and mutual support rather than one-time professional development events.
- **Document learning, not just outcomes.** Pay attention to—and capture—the learning process itself, including struggles, questions, and unexpected discoveries.
- **Design for spaciousness.** Include time for silence, reflection, and spontaneity rather than filling every moment with activity.



Learn more at
<https://bit.ly/4oFAekN>



CodeJoy

What if coding class felt more like a live game show? CodeJoy combines robots, performance, and real-time interaction to teach computer science through playful, hands-on experiences.

“What we’re trying to do is present something joyful, fun, and playful. And by playing with it, we can learn how it works.”

— Kelsey Derringer, Co-Founder, CodeJoy

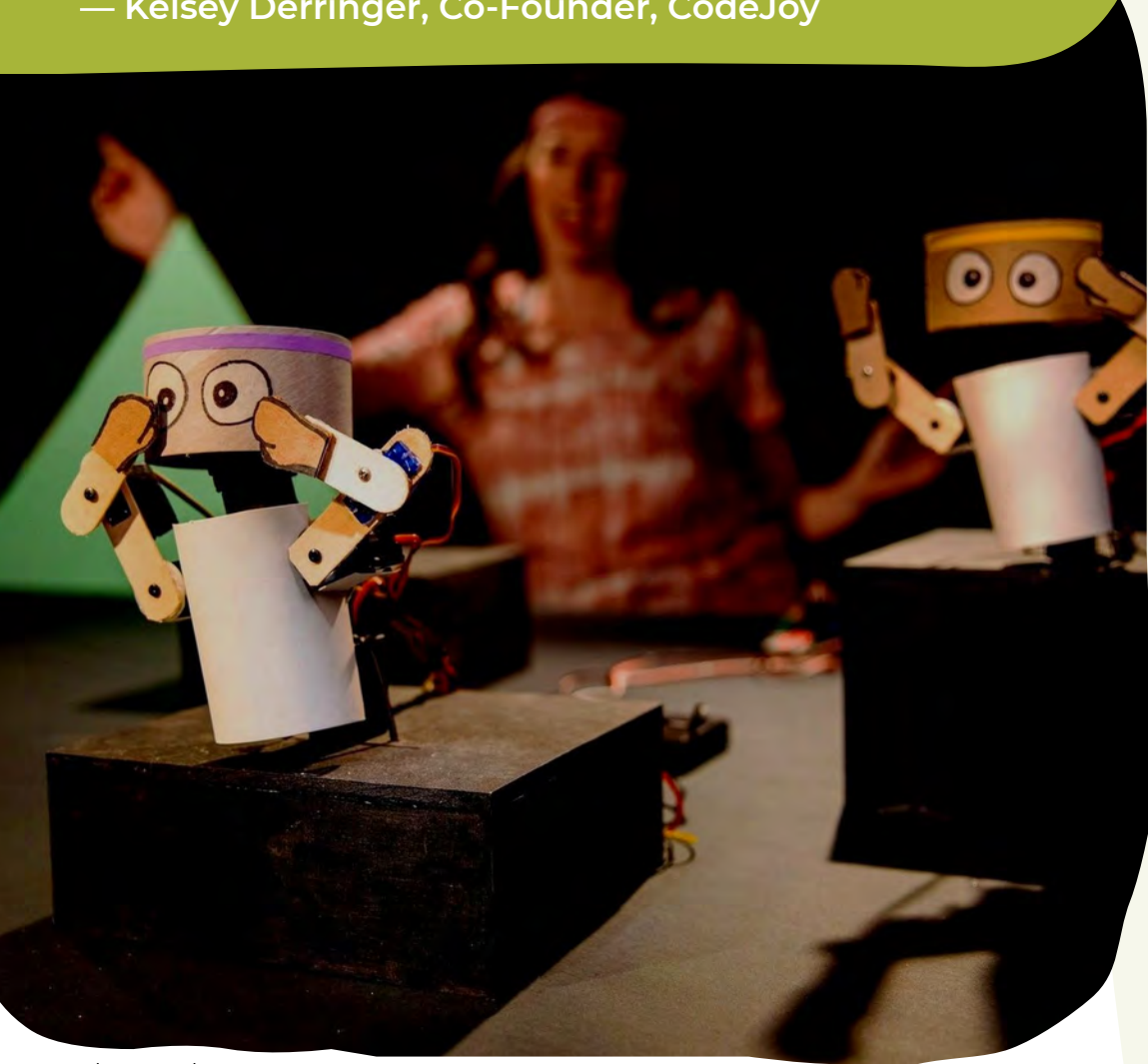


Photo: CodeJoy

What is it?

CodeJoy is an educational media company that teaches coding, robotics, and AI through live, interactive programs and teacher professional development. Students write code that controls real robots in real time, blending technology education with performance, storytelling, and play.

How did they do it?

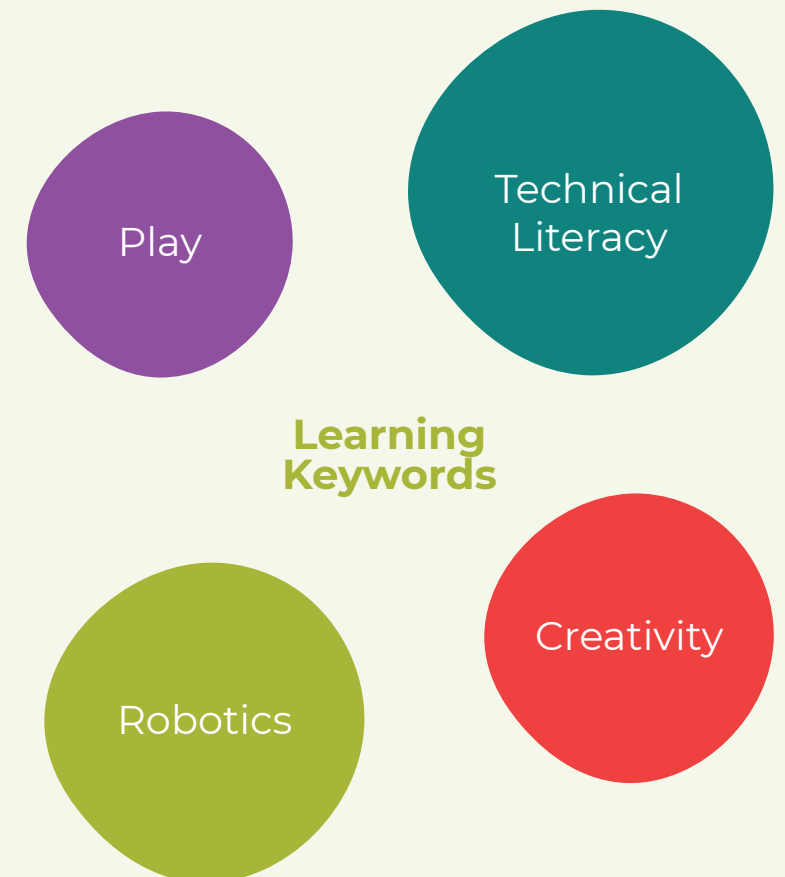
- **Spinning off.** CodeJoy grew out of professional development services offered by BirdBrain Technologies, an educational robotics company, before becoming an independent company.
- **Combining complementary skills.** Founders Kelsey Derringer and Matt Chilbert blended expertise in theater, education, puppetry, and media production to create highly interactive experiences.
- **Persistent experimentation.** A decade of experimenting with multi-camera production techniques in garages and home studios helped refine the company’s live delivery model.
- **Focusing on service.** By centering student needs and educational outcomes, CodeJoy expanded beyond robotics to serve broader teaching and learning needs.

What did they learn?

- **Live interaction is key.** When students code the movements of physical robots in real time, students engage in ways that prerecorded lessons can’t replicate.
- **Set the right tone.** Simple opening questions and immediate interaction helps students feel comfortable contributing early.
- **Wonder grows through understanding.** Showing students how robots work increased their curiosity rather than diminishing excitement.
- **Make it personal.** Calling out individual students and classrooms to celebrate their work strengthened connection, attention, and confidence during live sessions.

How might you do it, too?

- **Simply start and start simply.** Early experimentation in small spaces with few resources provides the challenge and flexibility needed to test and refine ideas.
- **Remember how to play.** Tap into the fun that makes work feel like play. Allow influences from childhood to inform your path forward.
- **Use virtual tools strategically.** Live, online delivery can expand reach while lowering barriers to participation.
- **Make learning interactive immediately.** Real-time feedback and visible outcomes help students stay engaged and invested in the experience.



Learn more at
<https://bit.ly/4e4EN4q>



Discovery Place at the Heinz History Center

What if history felt less like a lecture and more like a playground? Discovery Place invites children to build, test, tinker, and think like Pittsburgh’s great innovators.

“The idea was to learn the core principles of invention and innovation through play.”

— Emily Ruby, Curator, Heinz History Center



Photo: Heinz History Center



What is it?

Discovery Place is an interactive learning space inside the Heinz History Center that teaches innovation through hands-on play. Organized around people, process, and place, the exhibit helps children explore how Pittsburgh-area inventors, artists, and problem-solvers turned ideas into real-world change.

How did they do it?

- **Making it personal.** Discovery Place connected traits like curiosity, courage, and persistence to recognizable figures from science, the arts, and industry.
- **Teaching the process.** Interactive stations guided children through various stages of innovation, from observation and idea generation to tinkering, testing, and refinement.
- **Intergenerational design.** Rather than separating children’s activities from the museum, Discovery Place was integrated into the museum’s larger innovation exhibition to encourage family learning across generations.
- **Iteration through observation.** Staff adapted exhibits based on how children actually interacted with the space, allowing experimentation and playful messiness to shape future design decisions.

What did they learn?

- **Free access changes participation.** Removing admission barriers encouraged families to return regularly and engage with the space as part of everyday life.
- **Interaction requires intention.** Hands-on activities are most meaningful when connected to clear educational ideas and processes.
- **Process makes innovation approachable.** Teaching the steps behind invention helps children see innovation as something they can practice themselves.
- **Messiness reveals opportunity.** Observing how children naturally explore spaces can lead to stronger, more engaging design choices.

How might you do it, too?

- **Build around clear frameworks.** Organizing experiences around concepts like people, process, and place helps connect diverse activities into a coherent whole.
- **Highlight many kinds of innovators.** Include artists, musicians, scientists, and inventors to show that creativity and innovation exist across disciplines.
- **Let observation guide iteration.** Watch how participants actually use spaces. Allow those behaviors to inform redesigns and improvements.
- **Connect history to action.** Move beyond stories of the past by creating opportunities for learners to experiment and create the future.



Learn more at
<https://bit.ly/4ok3lKd>



Dream Factory

What happens when a traditional wood shop becomes a student-powered invention lab? Dream Factory turns making into a pathway for creativity, entrepreneurship, and innovation.

“We don’t want to add flash to the district. We just want to make sure we’ve got the best learning resources everywhere, in every classroom. That’s become our newest innovation.”

— Keith Konyk, Superintendent, Elizabeth Forward School District



Photo: Remake Learning



What is it?

Dream Factory is a digital fabrication lab in the Elizabeth Forward School District where students design, prototype, and build original projects using both traditional tools and advanced technologies. The space combines hands-on making with entrepreneurship, engineering, and real-world problem-solving.

How did they do it?

- **Transforming traditional spaces.** Elizabeth Forward redesigned a conventional wood shop into a flexible fabrication lab that combines digital tools with hands-on equipment.
- **Building networks.** Teachers launched the Pittsburgh FAB Network and a summer institute to connect educators, schools, museums, and industry partners around maker education.
- **Removing barriers.** The district eliminated prerequisites and intentionally created opportunities for girls and other underrepresented students to participate.
- **Positioning students as leaders.** Through community Maker Nights and student-run businesses, students taught adults, produced custom products, and applied entrepreneurial skills in authentic settings.

What did they learn?

- **Design dictates access.** Intentional outreach and expanded opportunities for participation mattered just as much as creating innovative spaces and technologies.
- **Students grow through ownership.** Giving students authentic responsibility increased confidence, engagement, and leadership.
- **Partner with researchers.** Outside analysis can help identify effective teaching practices and make them easier to replicate.

How might you do it, too?

- **Design for broad participation.** Build systems that intentionally include students who may not traditionally see themselves in maker spaces.
- **Create authentic, visible roles for students.** Community showcases and student-led events build confidence while strengthening support for programs.
- **Connect educators through networks.** Shared learning communities help spread ideas, resources, and momentum across schools and organizations.



Learning
Keywords



Learn more at
<https://bit.ly/4op3a06>



Dream Flight Adventures

What if your classroom was a spaceship? And your lesson was a mission to save the universe? Dream Flight Adventures transforms ordinary school spaces into immersive experiences where students solve problems together.

“We ask our kids to take risks, right? To do their best. Don’t just do enough —put yourself out there.”

— Mike Penn, General Manager, Dream Flight Adventures



Photo: Remake Learning

What is it?

Dream Flight Adventures is an immersive simulation program that turns classrooms into interactive mission environments inspired by science fiction adventures. Students take on specialized crew roles to complete collaborative challenges while exploring science, problem solving, and teamwork through real-time storytelling.

How did they do it?

- **Plunging in.** Founder Gary Gardiner began building and programming the experience before formal funding or school partnerships were secured.
- **Relying on elbow grease.** Using paint, lighting, and practical effects, classrooms were redesigned into immersive environments without requiring major construction budgets.
- **Making tech human-centered.** Flight directors used live cameras and real-time adjustments to tailor missions to student needs, abilities, and engagement levels.

What did they learn?

- **Immersion requires commitment.** Dedicated spaces, enthusiastic facilitators, and visible investment were essential to sustaining believable experiences.
- **Students rise to responsibility.** When entrusted with meaningful roles and collaborative missions, students consistently exceeded adult expectations.
- **Human facilitation matters.** Technology strengthened the experience, but responsive adults remained central to adapting challenges and supporting learners.
- **Advocacy never ends.** Leadership transitions and staffing changes required ongoing communication about the program’s value and impact.

How might you do it, too?

- **Start before you’re ready.** Begin development before securing partnerships. Visible progress generates excitement that verbal descriptions never will.
- **Keep humans in the loop.** Technology enables—but doesn’t replace—human judgment. Build systems that allow facilitators to adapt in real-time.
- **Demand dedicated resources.** Split attention kills immersion.
- **Model risk-taking.** When students are asked to push beyond “good enough,” they watch to see whether adults do the same.

Problem Solving

Collaboration

Learning Keywords

Play

Confidence



Learn more at
<https://bit.ly/3SAbQVp>



Educators' Neighborhood

What if educators had a place to slow down, reconnect, and remember why they entered the profession? Educators' Neighborhood builds community through reflection, conversation, and care.

“It’s in connections and community where learning and growth really happen.”

— Emma Swift Lee, Executive Director, Fred Rogers Institute



Photo: Josh Milteer for the Fred Rogers Institute



What is it?

Educators' Neighborhood is a year-long professional learning community created by the Fred Rogers Institute. Through small-group conversations and cross-country cohorts, educators connect around purpose, well-being, and the shared goal of supporting children and families.

How did they do it?

- **Starting with small cohorts.** Educators' Neighborhood began with a small group of Pittsburgh-area kindergarten teachers and expanded gradually, maintaining a relationship-centered approach.
- **Recognizing shared contexts.** Participants are thoughtfully grouped into cohorts based on professional roles and experiences to encourage conversation and peer support.
- **Creating flexible frameworks.** The program uses a clear structure for dialogue and reflection without relying on rigid curriculum or traditional professional development models.
- **Centering educator well-being.** The initiative evolved to intentionally support wellness, connection, and a sense of purpose as essential parts of sustaining educators in the field.

What did they learn?

- **Purpose sustains people.** Participants consistently described reconnecting with the reasons they chose to work with children and families.
- **Relationships drive growth.** Meaningful conversations and trusted peer communities proved more transformative than prescribed content.
- **Well-being deserves attention.** Supporting educators emotionally and relationally is essential to long-term retention and effectiveness.
- **Intimacy can scale.** The network expanded nationally and internationally by preserving its small-group, community-centered structure.

How might you do it, too?

- **Broaden your definition of educator.** Include anyone who supports children and families, whether they're classroom teachers or not.
- **Build intentional cohorts.** Thoughtful grouping allows for stronger conversations and more meaningful peer connections.
- **Prioritize reflection over delivery.** Design structures that encourage listening, storytelling, and authentic dialogue.
- **Make well-being explicit.** Treat educator wellness as a core objective rather than a secondary outcome.



Learning
Keywords



Learn more at
<https://bit.ly/4ol7ild>



Ehrman Crest Elementary & Middle School

More than just a school building, Ehrman Crest functions as a teaching tool itself, incorporating natural materials, outdoor access, and sustainable features like solar panels to support students' learning.

“We wanted learning to happen everywhere—not just in the classroom. Every wall, every hallway, every common space was designed to be a teaching tool.”

— The Seneca Valley Team



Photo: CannonDesign



Located in the Seneca Valley School District, Ehrman Crest Elementary & Middle School serves students in grades K-6. At the heart of the school is a shared community area called the Creativity, Innovation, and Research Center. The building's groundbreaking educational architecture earned recognition by TIME Magazine as one of the world's best inventions of 2022.



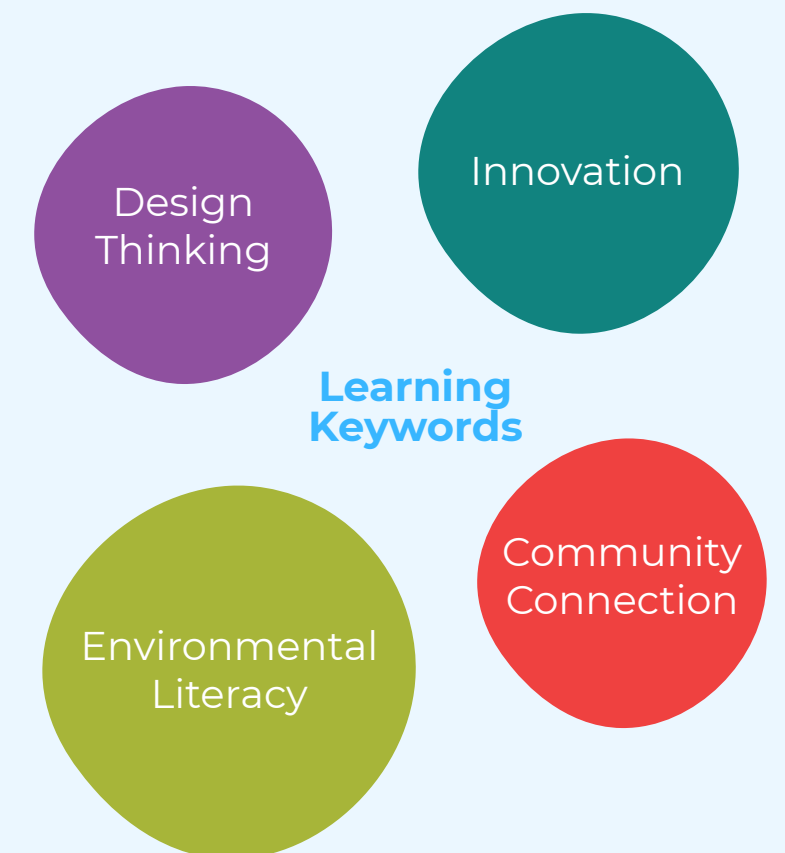
- **Leading by listening.** Ehrman Crest emerged from years of planning and extensive stakeholder input, combining long-term vision with broad community engagement.
- **Partnering across sectors.** Seneca Valley partnered with the Children's Museum of Pittsburgh and CannonDesign, blending educational expertise with architectural innovation.
- **Leveraging the building itself.** The design process prioritized the building's role as an active participant in learning, integrating sustainable features and natural elements that would serve as living laboratories for students.
- **Co-designing inclusively.** A collaborative approach allowed every stakeholder—from students and teachers to community members—to have a voice in creating an environment that would enhance curiosity, creativity, and collaboration.



- **Intentional design amplifies learning.** Physical space isn't neutral—it actively shapes how learning happens.
- **Sustainability can be the lesson.** Solar panels, natural materials, and outdoor spaces allow environmental stewardship to become part of daily learning.
- **Community partnerships accelerate innovation.** Collaborating with the Children's Museum of Pittsburgh wove hands-on learning into the school's DNA, while CannonDesign's architectural vision embedded educational principles in every corner of the building.
- **Shared spaces foster connection.** Learning transcends grade-level boundaries and benefits from intergenerational interaction and collaboration.



- **Space as a teaching tool.** Rather than viewing the school building as a container for education, consider how architecture—from natural lighting to building materials—can support learning objectives.
- **Prioritize stakeholder input from the beginning.** Extensive community collaboration isn't just good public relations—it's essential for creating spaces that serve the unique needs of their users.
- **Design for flexibility and connection.** Separate spaces for different age groups can coexist with shared areas that encourage cross-grade collaboration and community building.
- **Partner with unexpected allies.** Collaborating with unexpected partners like museums, libraries, game designers, and researchers can bring fresh perspectives and expertise.



 **Learn more at**
<https://bit.ly/4ovY3ez>



Everyday Mentoring

What if we leveraged every adult in a young person’s life as a mentor? Everyday Mentoring helps adults recognize the power of small, intentional connections.

“Caring adults are already doing this. They just have the opportunity to be more intentional.”

— Colleen Fedor, former Executive Director, The Mentoring Partnership



Photo: The Mentoring Partnership



What is it?

Everyday Mentoring is a program of The Mentoring Partnership that helps any adult become a more intentional mentor in their everyday interactions with young people.

How did they do it?

- **Beginning with research.** A year-long exploratory grant allowed The Mentoring Partnership’s team to study the impact of natural mentoring relationships before designing the program.
- **Embedding training into existing systems.** Everyday Mentoring partnered with organizations to integrate mentoring practices into staff onboarding and professional development programs.
- **Aiming for the unexpected.** The initiative trained crossing guards, librarians, barbers, coaches, and other adults who regularly interact with young people but who might not identify as mentors.
- **Supporting adults and students alike.** Alongside adult training, the program helped students recognize and strengthen their own support networks.

What did they learn?

- **Many mentors already exist.** The greatest challenge was helping adults recognize the influence they already have in young people’s lives.
- **Resisters can become supporters.** Initial skepticism about informal mentoring shifted as organizations saw the value of intentional relationships.
- **Consistency builds momentum.** Simple, ongoing resources like weekly mentoring tips created long-term engagement and organic growth.
- **Young people need mentoring language, too.** Students benefited from learning how to identify trusted adults and directly ask for support.

How might you do it, too?

- **Start with existing relationships.** Focus on strengthening connections already forming in schools, neighborhoods, and community spaces.
- **Create simple, consistent resources.** Develop resources that are digestible enough to sustain engagement.
- **Embrace intentionality.** Help people recognize the importance of what they’re already doing—and help them do it with intention.
- **Be complementary.** Position your work as supporting existing efforts rather than competing with them.



 Learn more at <https://bit.ly/442X9g8>



Fly Like a Girl

This drone flight academy helps young women learn that no glass ceiling can stop their ascent.

“We wanted to think big. Can we try to move the needle and expose young women in our area to opportunities in aviation?”

— Dr. Janeen Peretin, Assistant to the Superintendent, Baldwin-Whitehall School District

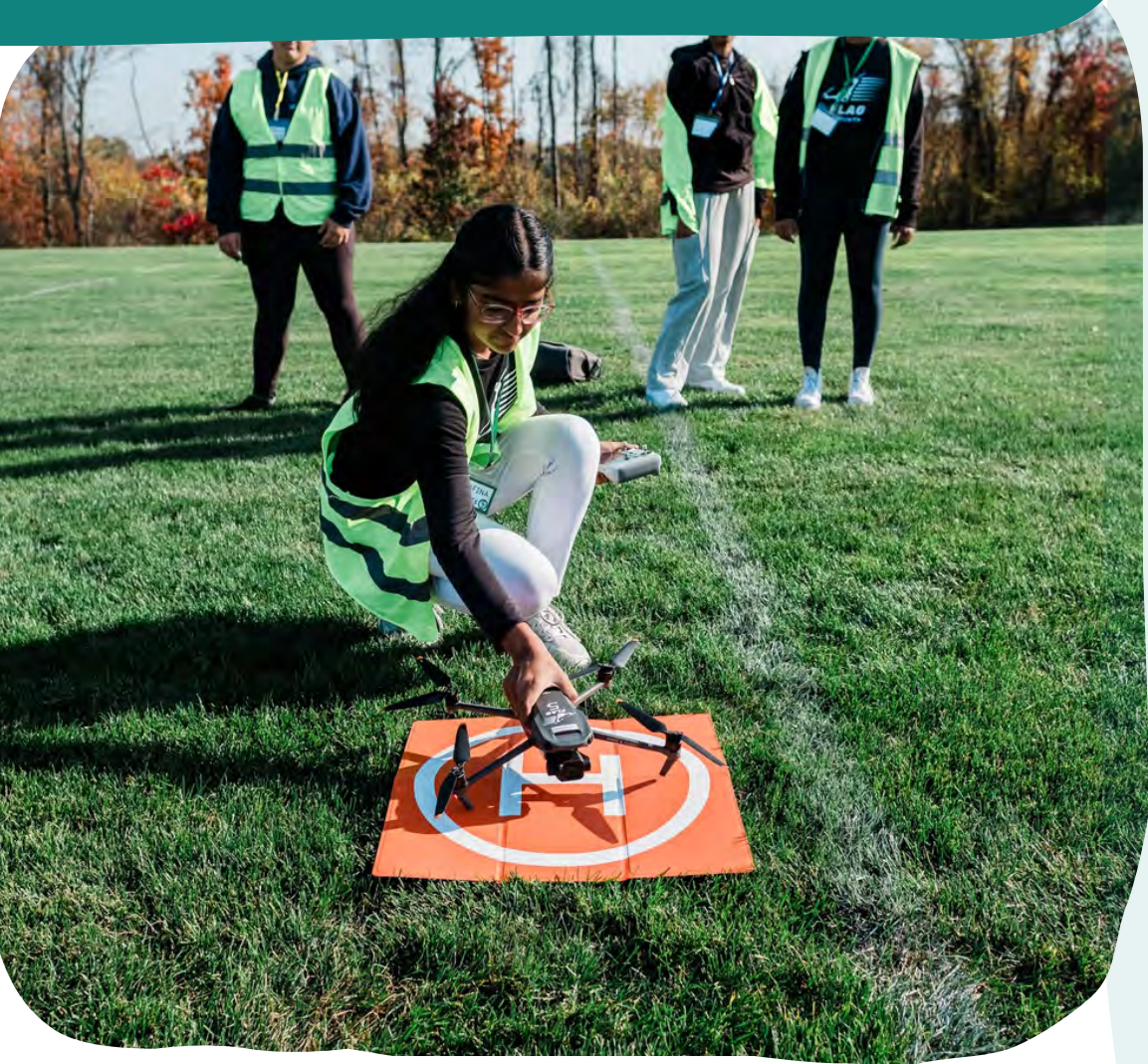


Photo: Remake Learning



What is it?

The Fly Like a Girl Drone Academy is a technical training program that teaches girls how to fly drones. The program weaves together expert instruction, hands-on flight experience, and a STEM curriculum that prepares female students to sit for the drone pilot’s exam.

How did they do it?

- **Aligning to industry needs.** Educators across three districts—Baldwin-Whitehall, Hempfield Area, and South Fayette—developed the idea in response to the aviation industry’s persistent gender gap and its growing demand for skilled pilots.
- **Designing for hands-on learning.** Partnering with a female flight instructor, the team transformed drone certification into an applied learning experience using beginner-friendly DJI Mavic drones.
- **Scaffolding the student experience.** Students participate in intensive summer sessions combining theory and flight, then shift to a flipped-classroom approach during the school year where they study theory remotely and reserve in-person class time for logging flight hours.
- **Earning real-world credentials.** Students prepare for and pass the FAA drone pilot exam, earning formal certification.

What did they learn?

- **New content levels the playing field.** Stepping so far outside of everyone’s comfort zone caused traditional academic hierarchies to dissolve: teachers became learners, and students stepped up as new confidence emerged.
- **Incentives precede passion.** Program leaders created a badge system, recognizing that external rewards might spark interest that later becomes intrinsic.
- **Money matters.** Providing meals and covering exam fees formed the essential components of the program’s accessibility.

How might you do it, too?

- **Reset expectations.** Intentional learning communities, whether focused on girls or other affinity groups, disrupt expectations and create breathing room for new confidence to develop.
- **Invite potential.** “Many girls needed someone to say, ‘I believe in you. I think you can do this,’ even to simply be part of the program,” says Dr. Peretin.
- **Partnerships strengthen impact.** Community members who make career connections can extend the impact of special interest clubs.



Learn more at <https://bit.ly/4cErLt2>



Girls of Steel Robotics

Girls of Steel takes students with no prior robotics experience on a full engineering journey from conceptual design through the production, testing, and operating of competitive robots.

“When they’re at a competition and something goes wrong—because, as you know, that’s what happens with robots—they’re like a pit team at a race.”

— Michelle Hyde, Program Manager, Girls of Steel

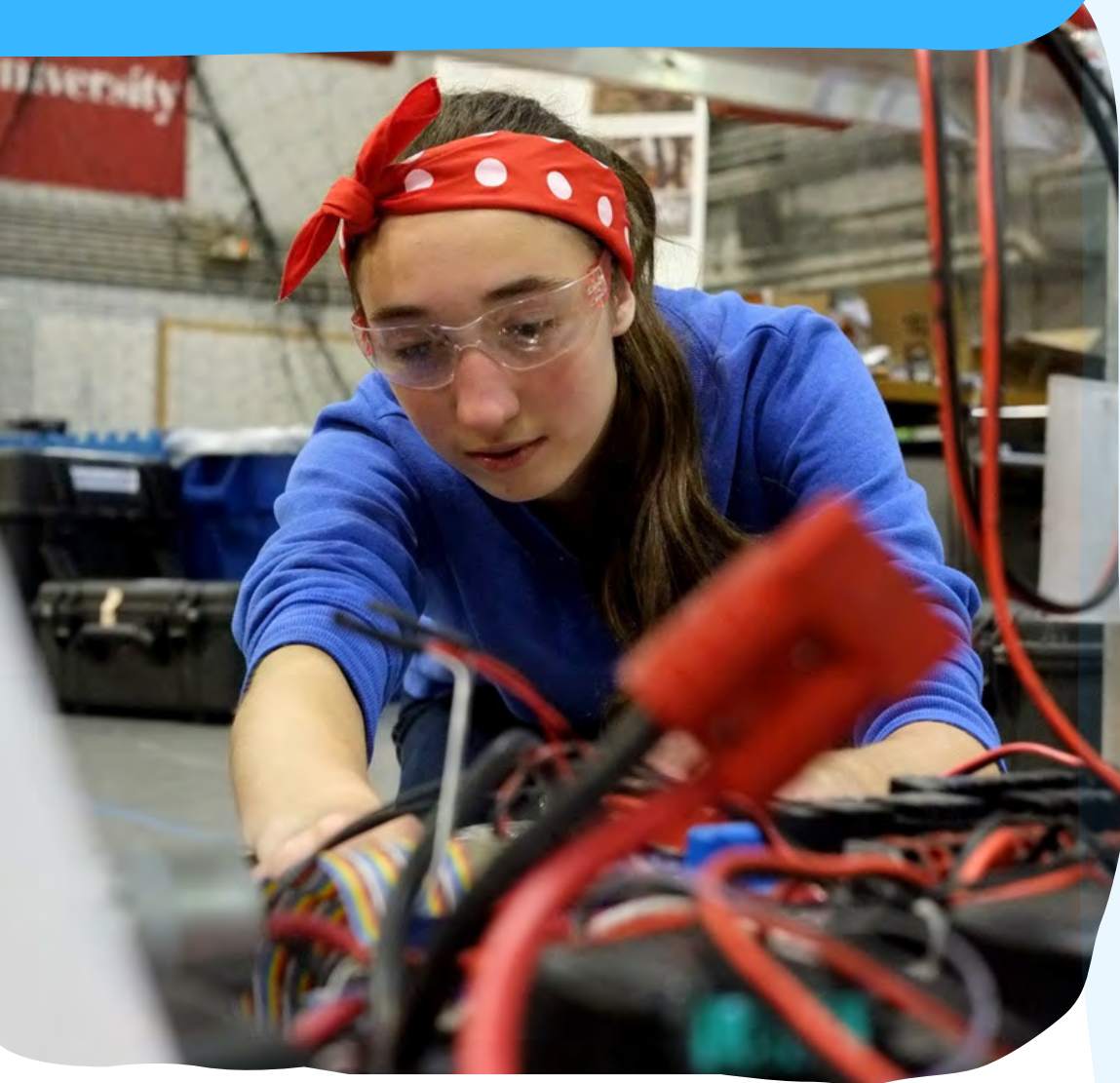


Photo: Remake Learning



What is it?

Girls of Steel aims to empower everyone to believe they are capable of success in STEM. The program spans elementary through high school and includes more than 160 students each year, drawing from multiple schools across Pittsburgh.

How did they do it?

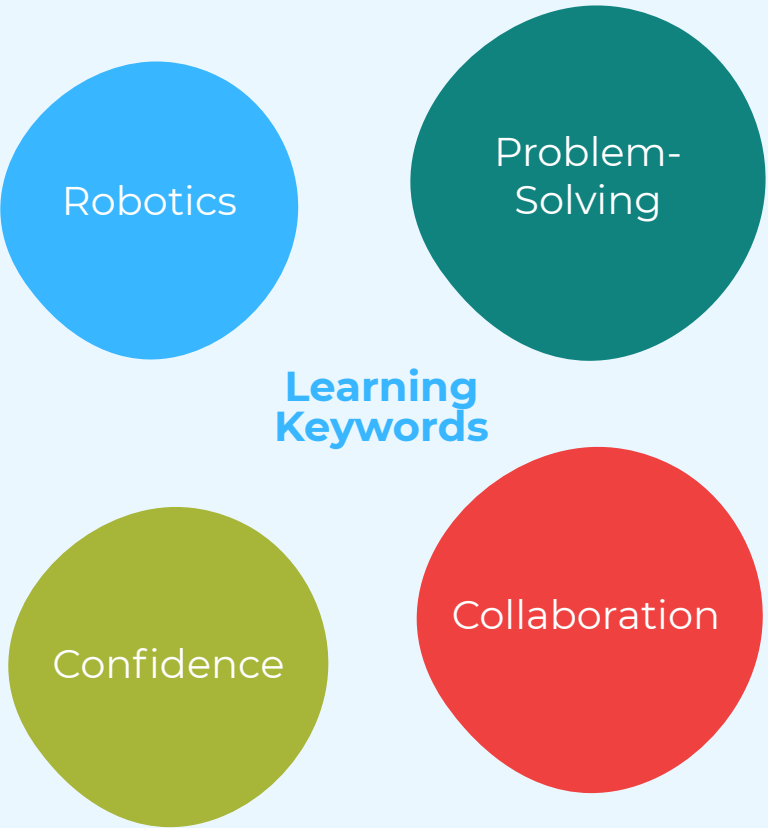
- **Creating accessibility.** The robot “practice fields” are open multiple times and days, accommodating students with overlapping commitments. A strong base of volunteer mentors keeps sessions running and promotes flexibility and accountability.
- **Designing tiered entry points.** All new members start with weekly robotics classes that build foundational competencies before advancing to competition.
- **Targeting outreach.** Reaching girls lacking funds or transportation can be difficult. Targeted outreach programs and summer camps can help address the gap.

What did they learn?

- **Volunteers are the beating heart.** Volunteer mentors with varied expertise keep practice sessions running and accommodate students’ busy lives.
- **Volunteers benefit, too.** Mentoring offers a meaningful experience for adults as well. Alumni return to volunteer their time, offering living proof of impact.
- **Tech is more than coding.** Students supplement technical skills with real experience working on budgets, procurement, public speaking, and advocacy.
- **Growth becomes organic.** In addition to its outreach, the program thrives on legacy—on team members’ sisters, neighbors, and friends spreading the word and expanding the community’s growth.

How might you do it, too?

- **Systematically remove barriers.** Address financial and logistical obstacles. Empower students to solve challenges like transportation.
- **Trust your community.** When the culture is inclusive, students naturally welcome and support each other. Establish that culture early.
- **Create flexible structures.** Letting learners lean into aspects of the program that interest them most encourages attendance and accountability.



Learn more at <https://bit.ly/4ar31mZ>



Happy Atoms

What if chemistry lessons felt less like memorization and more like discovery? Happy Atoms turns invisible molecular bonds into something students can build, hold, and explore.

“If I had learned atomic bonding like this, I would either understand it now or have gone into a career that was focused on it.”

— Brooke Morrill, Senior Director of Education, Schell Games



Photo: Schell Games

What is it?

Happy Atoms is a hands-on chemistry learning program created by Schell Games that helps students build and explore molecules through magnetic atom models and a companion app. By physically snapping atoms together, learners experiment with molecular structures while connecting chemistry concepts to real-world materials.

How did they do it?

- **Turning curiosity into prototypes.** Founder Jesse Schell spent years experimenting with physical atom models before testing the concept with elementary school students.
- **Designing for flexible access.** Happy Atoms was built so that physical models could work independently or alongside the app, making the system usable in a wide range of classrooms.
- **Embracing imperfect models.** The design focused on fostering intuitive understanding rather than scientific perfection, encouraging experimentation through “frontier molecules” and open-ended discovery.

What did they learn?

- **Play helps children grasp complex concepts.** Students who’d never heard of atoms quickly grasped molecular concepts when they could manipulate and experiment with physical models.
- **Learning grows when failure disappears.** Treating unexpected combinations as discoveries rather than mistakes encouraged deeper engagement and curiosity.
- **Tangibility matters.** Magnets and tactile materials made abstract concepts feel concrete and understandable in ways that digital versions did not.

How might you do it, too?

- **Follow childhood curiosity.** Longstanding personal questions and interests can fuel sustained experimentation and innovation.
- **Test ideas with learners.** Observing how students interact with prototypes can reveal problems and possibilities more effectively than planning alone.
- **Design for multiple environments.** Flexible tools that work with or without advanced technology can reach broader audiences.
- **Encourage exploration over correctness.** Learning environments that reward experimentation often produce deeper engagement and creativity.



Learn more at
<https://bit.ly/4ejcdLi>



HearMe Project

Inverting traditional power structures by giving students the tools and platforms to share their experiences with decision-makers and the wider community.

“Show students that they can construct their story, and help them leverage their story into the ears of decision-makers.”

— Illah Nourbakhsh, Kavcic-Moura Professor of Robotics, Carnegie Mellon University



Photo: Remake Learning



What is it?

The HearMe Project was an initiative of Carnegie Mellon University’s CREATE Lab that used technology to amplify children’s voices and teach them the power of storytelling. The project recorded children talking about their ideas, hopes, fears, and dreams, then distributed the recordings through interactive “tin can” audio kiosks.

How did they do it?

- **Ideating across disciplines.** CREATE Lab convened cross-sector retreats every 18 months, bringing engineers, educators, artists, and futurists together to generate unconventional ideas.
- **Practicing persuasion.** In addition to storytelling skills, children practiced rhetorical techniques to better craft persuasive messages rather than simply tell stories.
- **Building a network.** The team made open-source tools and materials, built partnerships with schools and community organizations, and cultivated diverse funding streams.
- **Advocating.** Using a mix of physical installations, digital platforms, and guerrilla marketing, CREATE amplified student voices—most notably through a “tin can” kiosk campaign that delivered recorded student stories directly to Pennsylvania legislators.

What did they learn?

- **Multiple delivery mechanisms amplify impact.** Using multiple platforms at once—from physical devices to digital channels to traditional media—broadens reach.
- **Students reveal unexpected progress.** The systematic recording and archiving of student stories can reveal patterns and trends that aren’t visible through traditional assessment methods.
- **Technology is secondary.** While technology connects student voices with adult decision-makers, real empowerment comes from helping students understand their power as advocates.

How might you do it, too?

- **Start with ideation.** Assemble teams with varied backgrounds and expertise to identify unique approaches that aren’t being pursued elsewhere.
- **Build authentic foundational relationships.** Focus on developing trust with local funding partners. Ask questions like, “What do you think of this idea? Who else should we talk to?”
- **Commit to sharing.** Make all materials, technologies, and methodologies freely available to build community trust and enable widespread replication.
- **Build up those already doing the work.** Embed innovations within existing structures for long-term sustainability beyond initial funding periods.

Leadership
& Advocacy

Storytelling

Learning
Keywords

Communication



Learn more at
<https://bit.ly/4atKaaX>



IU1 Fab Lab

Designed as a space for hands-on learning and exploration, the Fab Lab creates authentic, project-based experiences where academic learning, confidence, collaboration, social-emotional development, and career exploration naturally intersect.

“I really do believe that we made a difference by listening to those students and sitting down with them and saying, ‘What is it that you need? And how can we help you function through the day?’ Now we see the pride that they have in being able to come in here and say, ‘I made that.’”

— Dr. Don Martin, Executive Director, Intermediate Unit 1



Photo: Remake Learning



What is it?

The Intermediate Unit 1 Fabrication Lab—better known as IU1 Fab Lab—integrates hands-on making to serve students with mental health needs, special education requirements, and alternative education placement. Through authentic, project-based experiences, students create, innovate, and explore real-world applications while building technical skills, entrepreneurial mindsets, confidence, and pride in their work.

How did they do it?

- **Embracing serendipity.** When a distressed student was brought to the Fab Lab and asked to take a breath, staff discovered the space’s unexpected therapeutic benefits.
- **Leveraging little wins.** A small grant positioned IU1 to compete for larger opportunities, including a \$1.4 million Chevron grant for district-wide digital fabrication lab implementation.
- **A history of supporting the whole student.** Earlier Fab Lab programming brought students together with social workers, therapists, and instructors, demonstrating how making could create opportunities for connection, engagement, and support.
- **Taking making on the road.** A mobile Fab Lab housed in a towable trailer previously expanded access to hands-on learning, bringing creative technology and making experiences to communities across a wide and varied geography.
- **Integrated academics.** Educators extended Fab Lab projects into traditional classrooms, connecting English, history, and math lessons to students’ interest in making.

What did they learn?

- **Making enables authentic conversation.** Beyond building and creating, past Fab Lab programming demonstrated the power of making to foster connection. Social workers observed that meaningful conversations often emerged naturally as students engaged in hands-on projects.
- **Student ownership drives motivation.** When students began bringing their own project ideas and saying, “I want to make this,” the program knew it had achieved engagement rather than compliance.
- **Success creates new challenges.** Students are eager to spend as much time as possible in the Fab Lab because of their enthusiasm for creating and exploring. This level of engagement provides a powerful opportunity to support positive behaviors and help students carry their motivation, curiosity, and sense of accomplishment into other learning environments.
- **Entrepreneurship builds pride and purpose.** Student-operated stores and ccommunity markets create opportunities to learn business skills while building students’ self-worth.

How might you do it, too?

- **Include students on design teams.** Bring students together with business partners, teachers, and staff members to gather honest input and comprehensive perspectives on challenges and solutions.
- **Be prepared to pivot and adapt.** The original idea might look nothing like the final product. Embrace changes and alterations along the way based on what actually works.
- **Integrate support authentically.** Rather than adding therapeutic services as separate components, find ways to embed social-emotional support within engaging academic activities.
- **Document and celebrate growth.** Track transformation from simple beginnings to significant impact, using storytelling to inspire continued innovation and to create connections with other organizations and support replication efforts.



Learning Keywords



Learn more at
<https://bit.ly/4e3iewP>



Jerome Bettis' CyberBus

What if a school bus could deliver coding classes, internet access, and career skills directly to neighborhoods? The CyberBus brings technology learning to where families already are.

“We’re carrying computer science learning outside the four walls of the classroom and into communities that continue to be harmed by the digital divide.”

— Bethany Vietmeier, Executive Director, The Bus Stops Here Foundation



Photo: Boys & Girls Clubs of Western Pennsylvania



What is it?

Jerome Bettis' CyberBus is a mobile technology classroom housed in a refurbished school bus that travels across Pittsburgh. A program of The Bus Stops Here Foundation, the bus serves both students and adults through computer access, STEM programming, and hands-on technology learning delivered directly in neighborhoods.

How did they do it?

- **Responding to urgent gaps.** The program emerged after the COVID-19 pandemic highlighted inequities in families' access to technology and digital learning opportunities.
- **Building on existing efforts.** CyberBus expanded on earlier digital inclusion initiatives already underway through partners like the Housing Authority of the City of Pittsburgh.
- **Partnering across sectors.** Collaborations with STEM Coding Lab, Boys & Girls Clubs, and community organizations strengthened instruction, outreach, and neighborhood access.
- **Connecting to job opportunities.** Programming emphasized coding, digital literacy, and workforce preparation tied to growing technology careers in Pennsylvania.

What did they learn?

- **Mobility breaks barriers.** Bringing technology directly into neighborhoods reduced transportation and scheduling barriers for families.
- **Families learn best together.** Expanding programming to include adults strengthened students' learning and increased digital confidence across households.
- **Partnerships accelerate impact.** Community organizations, funders, and public agencies each contributed expertise, trust, and visibility.

How might you do it, too?

- **Meet people where they already are.** Mobile programs can expand access for communities facing transportation, time, or childcare barriers.
- **Think generations, not grade levels.** When families gain skills together, change becomes cultural. Digital citizenship becomes a shared family value.
- **Reimagine spaces to shift expectations.** A school bus redesigned as a technology lab creates excitement and makes learning feel accessible.



Learn more at
<https://bit.ly/4opmlH8>



JoJo's Weather Balloon

A one-time STEAM project evolved into a decade-long, interdisciplinary experience that blends science, engineering, writing, collaboration, and social-emotional learning.

“It’s truly a five-sense experience, which I find to be more valuable and more lasting than any chapter in any textbook.”

— Luke Hladek, Project Co-Founder



Photo: Wheeling Country Day School



What is it?

The JoJo Project is a student-led, high-altitude weather balloon launch developed by a fifth-grade classroom with the goal of lifting a payload into the stratosphere. The payload carries cameras and student-designed experiments to capture data and images from near space, as well as to promote the project and its local business sponsors.

How did they do it?

- **Centering real-world learning.** Students explored atmospheric science, flight systems, GPS tracking, and engineering constraints, applying knowledge learned in a classroom to a project that would physically leave the Earth.
- **Letting students lead.** The teacher acted as a project manager, with students co-planning, problem-solving, testing ideas, and adapting as challenges arose.
- **Creating shared purpose.** Midway through the first year of the project, the class experienced the unexpected death of a student, Josiah. Rather than stopping the work, the project took on new meaning, starting with the name *JoJo I*. The balloon launch became a shared act of reflection, purpose, and connection, helping students and the school community process grief while engaging their curiosity about the world above them.
- **Supporting the whole learner.** The balloon launch blended scientific exploration with emotional significance, deepening engagement and transforming learning into something personal and lasting.
- **Sharing the story.** The project’s impact was captured in a short documentary, extending its reach and sharing both the learning and its meaning with a wider audience.

What did they learn?

- **Experiential learning lasts.** When students engage their senses, learning becomes memorable, meaningful, and deeply understood.
- **Embrace uncertainty.** Weather delays, technical challenges, and unpredictability became part of the learning, not obstacles to it.
- **Learning is emotional, too.** The project created space for students to process grief, excitement, anticipation, and pride—all within an academic setting.
- **Trust changes outcomes.** Giving students real responsibility fosters confidence, ownership, and a genuine love of learning.

How might you do it, too?

- **Make learning a mission.** Anchor learning in real-world challenges that don’t have predetermined answers.
- **Give students ownership.** Let students plan, test, revise, and reflect. Teachers guide instead of direct.
- **Design for flexibility.** Powerful projects may shift as students’ academic and emotional needs change.
- **Share the journey.** Documenting and telling the story helps extend impact beyond the classroom.



Learn more at
<https://bit.ly/43E4XEZ>



LIGHT Education Initiative

What began as an encounter with a guest speaker became a mission to create “humanities maker spaces” that now reach nearly 16,000 students across 35 school districts.

“We traditionally tell students, ‘When you turn 18, you better be active, informed, contributing members of your society.’ But in order to help them do that, you have to practice with them.”

— Nick Haberman, Founder & Director, LIGHT Education Initiative



Photo: LIGHT Education Initiative



What is it?

The LIGHT (Leadership through Innovation in Genocide and Human Rights Teaching) Education Initiative is a K-12 school program that seeks to inspire, prepare, and empower the next generation of humanitarians. The program centers on a three-part framework inspired by a Holocaust survivor’s approach to educating young people: inspire, prepare, and empower.

How did they do it?

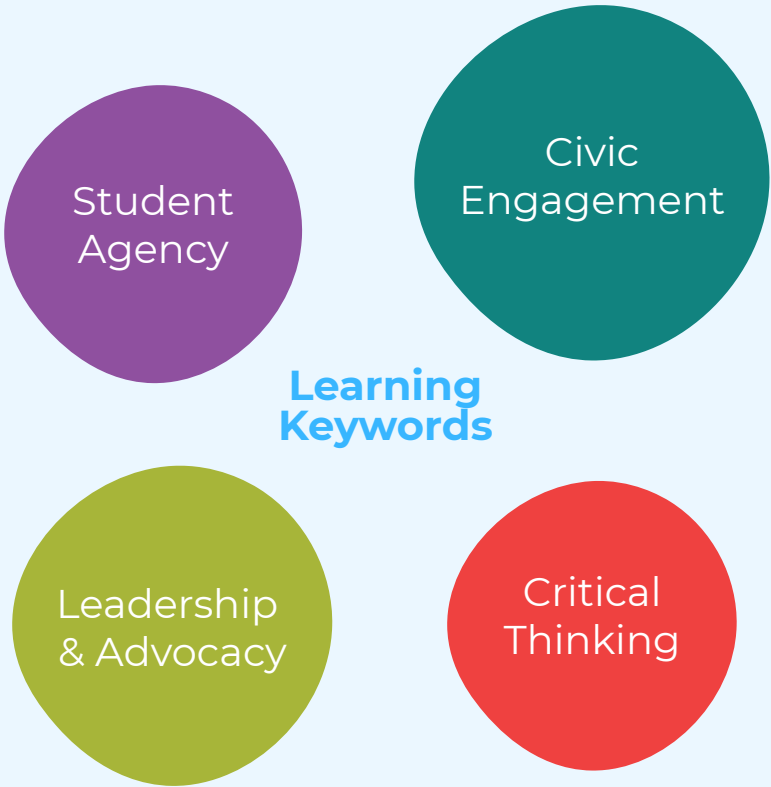
- **Engaging teachers.** Launched in the 2017-18 school year, LIGHT grew from a program in a single classroom to become the flagship educational outreach program of The Tree of Life, supporting students and educators in 39 school districts.
- **Creating buy-in.** While programs began with motivated teachers, LIGHT ensured alignment among school and district leadership to sustain and expand impact.
- **Starting with questions.** “You can’t lead with answers,” Haberman says. Instead, LIGHT collaborated with schools by exploring shared values, stories, and goals.
- **Programs for learners of all ages.** The approach focuses on “inspiring good neighbors” in primary schools, “preparing informed citizens” in middle schools, and “empowering loving humanitarians” in high schools.

What did they learn?

- **Building relationships takes time.** “You have to move at the speed of trust,” Haberman says. It takes time and planning for a community to identify its assets and needs.
- **Lived experience is transformative.** Students are inspired to act after meeting someone with a lived experience of the topics they’re learning about in their textbooks, Haberman says. Student-led programming creates greater community engagement.
- **Incentivize participation.** Each participating school district receives up to \$2,500 annually, along with additional funding for “in-school” programs and “in-community” experiences, like fully subsidized field trips to LIGHT Network community partner destinations.

How might you do it, too?

- **Co-design with participants.** Start with what students and communities are already experiencing. Haberman suggests asking: “What types of challenges are you experiencing in your school community that might be solved by active-civic engagement or humanitarianism?”
- **Educator relationships multiply student engagement.** Supporting educators creates lasting impact that reaches far more students than direct programming could achieve.
- **Secure the administration’s support from the beginning.** Start with permission rather than asking teachers to seek approval after experiencing programming.
- **Use healing-centered approaches.** Working with sensitive content requires awareness of the effects of the program. LIGHT’s speakers bureau ensures that the program is trauma-informed and healing-centered, and focused on hope and resilience.



Learn more at <https://bit.ly/4efTct4>



MAKESHOP®

An experiment in hands-on learning grew into one of the country’s most influential maker spaces, inviting children and adults alike to tinker, build, and learn together.

“The day that I saw a grandfather sitting and making a pin cushion for his wife, I knew: *We’ve got something here. This is pure gold.*”

— Jane Werner, Executive Director, Children’s Museum of Pittsburgh



Photo: Remake Learning



What is it?

MAKESHOP® is a permanent exhibit at the Children’s Museum of Pittsburgh where “everybody can be makers” through hands-on exploration with real tools and materials. MAKESHOP® emphasizes unstructured time and intergenerational learning. Research-backed principles guide the learning: inquire, tinker, seek and share resources, hack and repurpose, express intention, develop fluency, and “simplify to complexify.”

How did they do it?

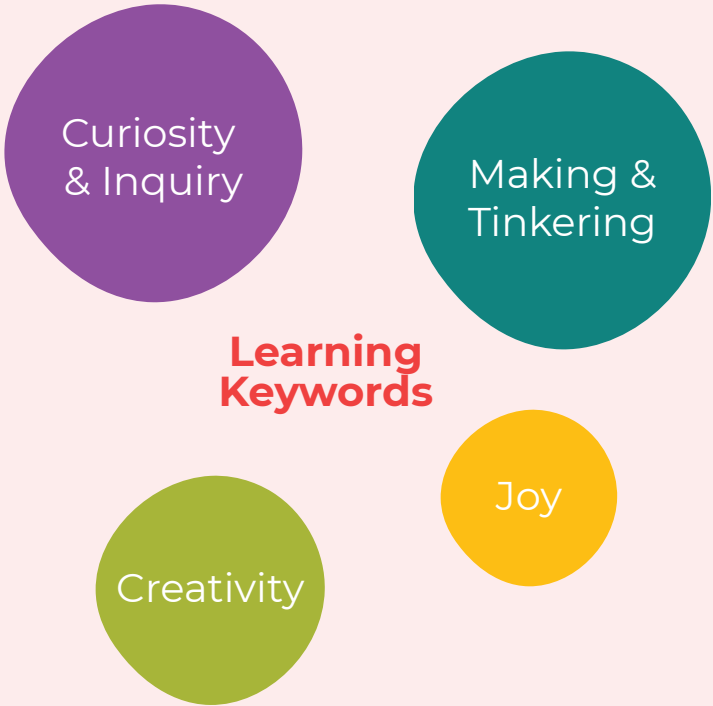
- **Make space for inquiry.** In 2010, Children’s Museum director Jane Werner and Drew Davidson from the Entertainment Technology Center at Carnegie Mellon University wondered together: “What would happen if there was a space for children and adults to explore, imagine, and learn by making things together?”
- **Research family engagement.** In collaboration with the Entertainment Technology Center and the University of Pittsburgh Center for Learning in Out-of-School Environments, the team paired hands-on making with research to study how families engage.
- **Experiment and iterate.** The museum piloted activities in electronics, sewing, woodworking, and digital media, refining the model through repeated testing and observation.
- **Invest long-term.** After a series of successful experiments, the museum established MAKESHOP® as a permanent, dedicated space.

What did they learn?

- **Simplicity enables creativity.** The most profound learning often happens with the most basic materials.
- **Unstructured time is essential.** In an over-scheduled world, children need time to explore without predetermined outcomes.
- **Professional development is non-negotiable.** Educator training and administrative buy-in are crucial for sustainability.
- **Each space is unique.** Rather than replicating a standard model, successful maker spaces reflect the unique talents, viewpoints, resources, and lived experiences of their communities.

How might you do it, too?

- **Start with what you have.** According to Werner, “You can do a maker space with nothing, really. Cardboard. Some yarn. A drill in case you want to punch holes. Tables and materials. Bins to put the materials in. A single teacher could employ what this does in any classroom, anywhere. I mean, it’s really simple stuff.”
- **Focus on process over product.** The principles of practice provide a framework that transcends specific activities or tools. Whether sewing a button or creating a circuit, learning can be an inspiring process.
- **Embrace intergenerational learning.** Some of the most powerful moments happen when learners of different ages work together, each bringing their own perspectives and capabilities.
- **Invest in people.** Sustainable change requires ongoing support and community building among educators, not just one-time workshops.



 Learn more at <https://bit.ly/4eAWnNp>



Matt's Maker Space

After losing their son Matt to cancer, Noelle and David Conover wanted to give back. What they created has brought joyful, hands-on learning experiences to hundreds of children across dozens of school districts, hospitals, community centers, and universities.

“There are really only two choices when your child dies: die with your child or live. If you’re going to live, then let’s get passionate about something, and let’s remember your child with it.”

— Noelle Conover, Co-founder and Executive Director, Matt's Maker Space



Photo: Noelle Conover



What is it?

Matt's Maker Space partners with schools, libraries, community centers, and even hospitals to create maker spaces that inspire creative, collaborative, and experiential learning. With the motto “Nothing is Impossible,” Matt's Maker Space is a place where kids can explore science, technology, engineering, arts, and math through experiential and hands-on learning.

How did they do it?

- **Leaning on expert partners.** The Conovers collaborated with the Children's Museum of Pittsburgh and Carnegie Mellon University to design maker spaces and an accompanying lesson library.
- **Building essential infrastructure.** The team established Matt's Maker Space Inc. to coordinate implementation and sustain growth through philanthropic and corporate fundraising.
- **Strategizing for sustainable growth.** The initiative maintains momentum by adding four to eight new spaces annually, guided by consistent funding and a replicable model. Each space receives up to \$25,000 for equipment, training, and curriculum.
- **Expanding with intention.** Starting with seven maker spaces in the Mt. Lebanon School District, Matt's Maker Space grew to more than 60 sites across Pittsburgh, from Title I schools to community centers, libraries, and hospitals.

What did they learn?

- **It takes a village.** Keeping a maker space active requires a dedicated facilitator who will bring the space to life, an enthusiastic principal who sets the tone for the school, and an administrator or superintendent who prioritizes the program.
- **Collaboration breeds kindness.** The collaborative environment naturally fosters empathy and community support.
- **Mistakes are opportunities to learn.** Maker spaces breed the iterative design process that characterizes authentic STEAM learning.
- **Adopt a workforce mindset.** By branding maker spaces as preparing “employees of the future,” they attracted financial support from the corporate community.

How might you do it, too?

- **Start with a story, not stuff.** Technology alone cannot transform learning; compelling narratives and passionate educators create the conditions for meaningful engagement.
- **Inclusion requires intention.** Leverage your access, resources, and connections to address opportunity gaps.
- **Partnership amplifies impact.** Collaborating with established institutions provides credibility, expertise, and pathways for scaling successful models.



Learn more at
<https://bit.ly/4onew4O>



MCG Youth Guild on the Go

To reach more kids, a world-renowned afterschool apprenticeship program goes mobile.

“Art is the vehicle for engagement. It’s really exciting when we can go into a chemistry classroom and talk about the science of glazing for ceramics. It’s like jazz music when you put these different pieces together.”

— Justin Mazzei, Executive Director, MCG Youth



Photo: Remake Learning



What is it?

Guild on the Go is a mobile arts program of Manchester Craftsmen’s Guild (MCG), created to reach students who couldn’t travel to the guild’s studio facilities on Pittsburgh’s Northside. Guild on the Go brings professional teaching artists and industry-standard materials to “co-created experiences” throughout the community.

How did they do it?

- **Leveraging relationships.** The program grew from MCG’s longstanding relationship with Pittsburgh Public Schools, which began with founder Bill Strickland’s original vision in 1968. The program has evolved to bring diverse art forms to various locations, maintaining flexibility to work in different environments and timeframes.
- **Setting the table.** Rather than imposing a predetermined curriculum, Guild on the Go operates on a collaborative model drawing from MCG’s five studio domains: design, photography, ceramics, digital arts, and jazz.
- **Maintaining excellence.** Guild on the Go maintains MCG’s commitment to industry-standard materials and professional teaching artists “to mirror what is actually happening in the world,” says Mazzei.

What did they learn?

- **Environment and relationships are key.** Going mobile taught MCG Youth to adapt to different environments and build authentic relationships.
- **Flexibility is key.** “It can be easy to bite off more than you can chew when planning off-site engagements,” says Mazzei, noting that unexpected circumstances “might affect the scope of the work that we can do.” Staying flexible in such cases, he says, “has allowed us to find the possible in the impossible.”
- **Hiring for passion matters.** Success depends on finding people whom Mazzei describes as bringing “the right amount of love, care, and open-mindedness to the work we’re striving to accomplish.”

How might you do it, too?

- **Prioritize co-creation.** Rather than bringing a fixed curriculum to partners, ask, “What’s our expertise? What’s your expertise?” Design experiences that leverage everyone’s strengths.
- **Maintain quality regardless of location.** Don’t compromise on materials or professional expertise when working off-site.
- **Design for cross-curricular learning.** The most powerful mobile programming happens when art becomes a vehicle for learning in unexpected contexts, like bringing ceramics into chemistry classes.



Learn more at
<https://bit.ly/4fEBiCO>



Message From Me

Ask a child what they did at school, and they might say, “Nothing.” Message From Me changes that, helping children share their experiences and making everyday learning visible to families.

“When children were picked up from school, a parent would say, ‘I got your photo today! I saw you built a magnet-tile tower and counted 20 blocks.’ Moments like these sparked conversations between children and their grown-ups about what the child had done at school that day.”

— Sue Polojac, Former Project Co-Lead, Message From Me



Photo: Remake Learning

What is it?

Message From Me is a digital tool that helps young children communicate with their families about their daily activities and learning experiences by recording and sending photo and audio messages throughout the day.

How did they do it?

- **Partnering to problem-solve.** Early childhood advocates at Trying Together partnered with technologists at Carnegie Mellon University’s CREATE Lab to solve two challenges: children struggling to articulate their learning and families feeling disconnected. Early childhood advisory groups played a key role in shaping and strengthening the model over time.
- **Testing and evolving.** The team developed and tested a prototype housed in a fiberglass kiosk equipped with a microphone and camera that children could use to photograph their work and record messages to family members. When iPads emerged, the program evolved into an app, dramatically improving accessibility.
- **Embedding professional learning.** Success depended on helping educators integrate the tool into broader digital literacy practices.
- **Offering continued support.** The team provided educator-created guides, monthly “office hours,” and on-site visits to ensure continuous feedback and improvement.

What did they learn?

- **Trust children’s technological intuition.** Young children are often remarkably adept with technology, especially when given developmentally appropriate tools.
- **Embrace failure and iteration.** Grant-funded projects will change multiple times. Success comes from learning and making incremental improvements rather than achieving perfection.
- **Diverse perspectives strengthen outcomes.** Building a team that includes different voices—from the practical to the critical to the optimistic—resulted in more robust solutions to problems.

How might you do it, too?

- **Listen first, build second.** Identify genuine problems through conversations with educators and families before jumping in to design solutions.
- **Support technology with professional development.** Create frameworks that help teachers understand not just how, but why tech tools can be used effectively.
- **Maintain clarity of purpose.** Continually ask whether the solution serves educational goals. Purpose matters more than novelty.



Moonshot Classroom

What if every student had a learning plan built around their interests? The California Area School District's Moonshot Classroom replaces traditional grades with personalized pathways and coaching.

“We know that once a kid gets a grade, they stop learning. They just say, ‘Hey, I got an A, I’m good. I’m moving on.’ I just want kids to love school.”

— Dr. Laura Jacob, Superintendent, California Area School District



Photo: Remake Learning



What is it?

Moonshot Classroom is a K-12 educational program that eliminates traditional grades in favor of personalized, interest-driven learning. Every student in the class develops an Individualized Education Program (IEP), a tool once used exclusively to support students receiving special education services. Students work with a full-time “learning coach” to achieve their goals.

How did they do it?

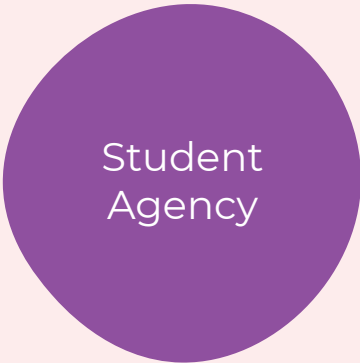
- **Starting with students’ interests.** The program began by asking students and families, “What does your ideal school look like?” and built IEPs around those interests, from beekeeping to data science to Greek mythology.
- **Customizing standards.** Rather than teaching standards uniformly, educators aligned required content to each student’s passions, using interests as the pathway to mastery.
- **Opening doors.** Students can join at any grade level, engage in select subjects, or blend the program with traditional classroom experiences.
- **Aligning leadership.** Strong support from the school board and administrative team ensured coherence and sustained commitment to the model.

What did they learn?

- **Expect resistance.** Parents understandably have concerns about college admission issues, despite evidence from recent graduates of the program.
- **Attend to opportunity gaps.** Dr. Jacob remains vigilant to ensure the Moonshot Classroom doesn’t “become a glorified gifted program” by tracking socioeconomic status, diversity, and more.
- **Flexibility breaks down barriers.** Many students who have IEPs choose the Moonshot Classroom because of the flexible, personalized approach.
- **Teacher mindset matters.** Success depends on helping educators understand the aims of the program and providing ongoing support to think differently.

How might you do it, too?

- **Start with willing participants.** Use student or parent choice to build momentum and prove effectiveness.
- **Challenge artificial constraints.** Question assumptions about what’s required.
- **Focus on interests.** Design learning around what students are passionate about. If a student loves finance and swimming, use those interests to teach required standards.
- **Use technology strategically.** Technologies like generative AI can allow educators to focus on the human side of personalized learning while tech tools handle administrative tasks.



Learning
Keywords



Learn more at
<https://bit.ly/4vABlnQ>



Oasis Farm

What began with a rebuilt greenhouse has grown into a vibrant, multigenerational hub where people learn about food, health, leadership, and the environment through deep community connection.

“We’re here to create oases—places of peace, safety, and happiness in the midst of difficulty. We’re all about community transformation.”

— Cynthia Wallace, Executive Director, Oasis Farm



Photo: Bible Center Church

What is it?

Oasis Farm is a thriving microfarm in the Homewood area of Pittsburgh, a neighborhood without a grocery store for more than 40 years. The formerly vacant lot is now home to gardens, an orchard, an edible park, outdoor learning and play spaces, and even a wood-fired brick oven. Many of the crops are tied to Black, African, Caribbean, and diasporic foodways.

How did they do it?

- **Growing organically.** The farm emerged naturally when Casey Clauser, a teacher living in Bible Center Church’s Ministry House, asked to rebuild the founder’s greenhouse. All it took to start was permission to follow a passion.
- **Putting learning first.** The farm produces food, but learning comes first. Families learn the basics of healthy shopping, food preparation skills, and culturally relevant crops. The farm also operates a paid youth workforce and leadership program for young people ages 14-21.
- **Meeting neighbors’ needs.** Volunteers were eager to support Oasis Farm’s mission because they had a passion for gardening but no access to the green space to do so.

What did they learn?

- **Mistakes can be teachers.** Poor battery backups led to fish kills in the aquaponics program. “After a couple of times with that, we decided that we’re just Oasis Farm now,” says Wallace. They tried it, learned from it, and moved on.
- **Visibility matters.** Oasis Farm’s manager visits neighborhood spaces throughout Homewood, talking with residents about the farm, what’s growing, and what programs are available.
- **Show up consistently.** Genuine relationships take time. Today, people recognize the farm truck in the neighborhood. They know when planting season starts. Familiarity builds trust.

How might you do it, too?

- **Listen, then plan.** Spend time in your community without an agenda. What are people saying they want? What’s missing? What already exists to be built up?
- **Tap existing knowledge.** Community members, especially elders, often have skills you might need. For example, many people in Homewood grew up growing food with their grandparents.
- **Be practical.** Design for your real capacity, not your aspirational one.
- **Try, learn, and adjust.** Not every idea will work. Give yourself permission to experiment and pivot without shame.



Pennsylvania Trolley Museum as a Certified Autism Center

What if a museum visit felt welcoming to every family? The Pennsylvania Trolley Museum reimaged accessibility so that more visitors could comfortably explore, learn, and belong.

“Anything you can do to make your guests more comfortable is important, because it’s all about the visitor experience: inclusivity, excitement, and joy.”

— Jeanine DeBor, Executive Director, Pennsylvania Trolley Museum



Photo: Remake Learning



What is it?

The Pennsylvania Trolley Museum preserves historic transit equipment while creating accessible learning experiences for visitors of all abilities. As the Pittsburgh area’s first Certified Autism Center, the museum added sensory-friendly spaces, accessibility resources, and staff training to better serve neurodivergent visitors and their families.

How did they do it?

- **Noticing unmet needs.** Museum leaders recognized that many visitors, especially neurodivergent children and families, needed accommodations the museum was not yet providing.
- **Listening to families.** Conversations with people connected to the autism community shaped the museum’s understanding of accessibility and informed future decisions.
- **Researching expert partnerships.** The museum partnered with the International Board of Credentialing and Continuing Education Standards to assess its facility, recommend improvements, and earn recognition as a Certified Autism Center.
- **Persisting through setbacks.** After an initial funding denial, the team reapplied for grants that ultimately supported staff training, sensory resources, and accessibility upgrades.

What did they learn?

- **Small accommodations open doors.** Features like sensory backpacks and adult changing tables made participation possible for families who otherwise avoid public spaces.
- **Training builds confidence.** Accessibility training equipped staff and volunteers with practical tools to better support all visitors.
- **Inclusive design benefits everyone.** Changes intended for neurodivergent visitors improved comfort and navigation for the broader public as well.
- **Accessibility is ongoing.** Building a welcoming environment requires continual learning, adaptation, and responsiveness to community needs.

How might you do it, too?

- **Start with what you can improve.** Small changes in comfort, communication, and accessibility can significantly improve visitor experiences.
- **Learn from lived experience.** Engage directly with the communities you hope to serve—and let those conversations guide decisions.
- **Build on existing strengths.** Expand accessibility efforts from the resources and practices already in place rather than starting from scratch.
- **Share what you discover.** Documenting and discussing accessibility strategies helps other organizations strengthen their own efforts.



Learn more at
<https://bit.ly/3SiuEZb>



Pittsburgh World of Work

What if career exploration started in kindergarten? Pittsburgh World of Work helps students connect their interests, strengths, and classroom learning to futures they may never have imagined.

“Every single kid matters. And they don’t need to change who they are—they can do something they love that aligns with their strengths, interests, and talents.”

— Bill Battistone, Principal, Avonworth Elementary School



Photo: Pittsburgh World of Work



What is it?

Pittsburgh World of Work is a free, open-source career exploration framework that helps students identify interests and connect their learning to future professions. Using the RIASEC career framework model, teachers integrate career language into everyday lessons so that students begin to imagine themselves in a wide range of possible futures.

How did they do it?

- **Cross-district collaboration.** Four Pittsburgh-area school districts—Avonworth, Duquesne City, Elizabeth Forward, and South Fayette—pooled resources and leadership to develop a shared career exploration framework that could be adapted by different communities.
- **Starting small.** The initiative began in a handful of classrooms, allowing teachers to test ideas and refine materials before scaling across districts.
- **Learning from existing models.** Educators traveled to California to study the Cajon Valley Union School District’s World of Work framework, adapting it for Southwestern Pennsylvania schools.
- **Sharing resources openly.** After developing the regional framework, the team made materials, assessments, and implementation guides freely available and trained additional districts to adopt the model.

What did they learn?

- **Integration matters more than addition.** Embedding career language into existing lessons proved more sustainable than creating separate programming.
- **Students drive the learning forward.** Once students learned the framework’s language, they began independently making connections between their interests and future careers.
- **Shared language strengthens belonging.** Recognizing different strengths and working styles helped reduce peer conflict and support social-emotional learning.
- **Purpose energizes educators.** Connecting classroom content to students’ futures renewed many teachers’ sense of meaning and motivation.

How might you do it, too?

- **Start with a pilot.** Small pilot projects create space to experiment, refine ideas, and build momentum over time.
- **Overlay, don’t add on.** Integrating new frameworks into current lessons is more manageable than adding entirely new content.
- **Secure leadership support.** Administrative backing creates the flexibility and trust needed for innovation to take hold.
- **Share what works.** Open resources and cross-district collaboration can accelerate adoption and strengthen implementation.



Learn more at
<https://bit.ly/4v2MWfs>



Project Baseplate Brick Clubs

Using LEGO bricks to help students build foundational skills in collaboration and communication while making friends and having fun.

“How do we make learning the flip side of joy and fun?”

— John Balash, Director of Academic Outreach, Extension, and Engagement, Carnegie Mellon University’s Entertainment Technology Center



Photo: Project Baseplate



What is it?

Project Baseplate Brick Clubs are collaborative LEGO-building experiences designed to develop communication, confidence, and a sense of belonging among students. Working together in small groups, students take on roles as builders, suppliers, and engineers. Every student contributes and learns in different ways as they build together.

How did they do it?

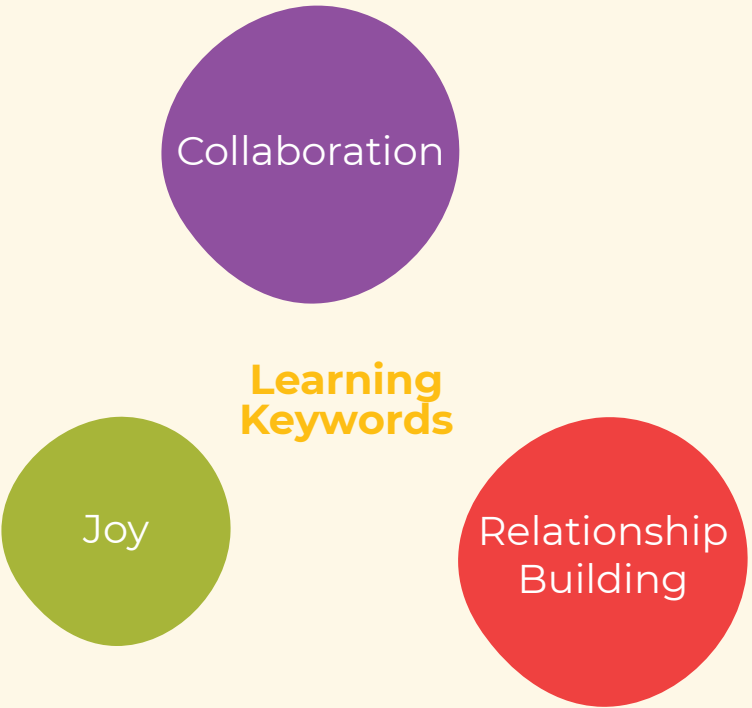
- **Universalizing particulars.** Originally rooted in programs supporting autistic learners, Brick Clubs expanded to serve a broader range of students navigating social connection.
- **Creating simple structures.** Students cycle through defined roles, ensuring balanced participation and exposure to different skills.
- **Building strategic partnerships.** Rather than creating a new curriculum from scratch, Project Baseplate has partnered with Play Included, the leading provider of LEGO brick-based therapy, and other international organizations like Care for Education—both of which have received funding from the LEGO Foundation.

What did they learn?

- **Role rotation drives equity.** When students switch roles, everyone has the opportunity to lead and support, regardless of starting skill level.
- **Simple tools can lead to deep impact.** LEGO bricks, when used intentionally, can unlock complex social and emotional development.
- **The process (and the fun) is the learning.** Conversations, problem solving, iteration, and joy during building matter more than the final product.
- **Accessibility requires ongoing design.** Even familiar systems like LEGO bricks need adaptation to meet the needs of all learners.

How might you do it, too?

- **Structure collaboration for contribution.** Make sure everyone knows how to contribute. This gives students the chance to experience different perspectives within a group.
- **Focus on interaction, not outcome.** Prioritize communication and teamwork over completing the “perfect” build.
- **Use what you have and build for inclusion.** Although LEGO bricks work well, the core idea—structured collaboration—can apply to many materials.



Learn more at
<https://bit.ly/446my8A>



Project Zero Pittsburgh

What if professional learning felt less like training and more like collaborative inquiry? Project Zero Pittsburgh helps educators rethink teaching by learning alongside one another.

“I firmly believe that it starts when you look down at your own feet. You think deeply about the change that you want to make. You invite somebody into your practice, rather than telling somebody, ‘This is the way that it should be.’”

— Jeff Evancho, Executive Director, Pittsburgh Teaching & Learning Collaborative



Photo: Remake Learning

What is it?

Project Zero Pittsburgh connects local educators with the research and learning frameworks inspired by Project Zero at the Harvard Graduate School of Education. Through gatherings and collaborative networks, educators explore teaching practices that emphasize curiosity, thinking, reflection, and individualized learning.

How did they do it?

- **Starting with themselves.** Founder Jeff Evancho began by inviting colleagues into his classroom to observe, collaborate, and reflect on teaching together.
- **Building reciprocal relationships.** Connections with Harvard's Project Zero helped bring research-based learning frameworks into local schools and educator networks.
- **Removing practical barriers.** Project Zero Pittsburgh adapted Harvard's institute model into affordable local conferences supported through regional partnerships and foundation funding.
- **Moving as a network.** The initiative expanded organically across districts as educators shared experiences and invited colleagues into the work.

What did they learn?

- **Invitation beats prescription.** Educators responded more openly to collaboration and demonstration than to top-down mandates.
- **Teaching is lifelong learning.** Teaching is a design challenge in which the variables change yearly (and sometimes daily), requiring constant adaptation.
- **Structure sustains serendipity.** When people discover the work organically, intentional relationships and institutional support provide the foundation for growth.
- **Proximity matters.** Making high-quality professional learning accessible locally removes barriers, increases participation, and creates the conditions for educator empowerment.

How might you do it, too?

- **Begin with your own practice.** Open classrooms, invite feedback, and model curiosity about improvement.
- **Identify multiple kinds of leaders.** Sustainable change requires both visionary administrators and practitioners committed to day-to-day implementation.
- **Create different entry points.** Allow for degrees of participation, from observation and experimentation to joining fully in the adventure.
- **Adapt to local needs.** Build frameworks flexible enough to support different teaching styles, learners, and school contexts.



**Learning
Keywords**



Learn more at
<https://bit.ly/4vC5L9d>



Questyinz

Imagine an adventure through your imagination that lasts all summer. Questyinz turns libraries, neighborhoods, and curiosity itself into a summer reading challenge.

“We’ve tried to reach reluctant readers by making summer reading a game. The goal is to teach kids how to be lifelong learners and pursue what interests them.”

— Kristin Rama, Youth Services Coordinator, Allegheny County Library Association



Photo: Remake Learning



What is it?

Questyinz was an online summer reading game used by libraries across Southwestern Pennsylvania to motivate young readers through quests, badges, and exploration. Students completed challenges that combined reading, research, writing, and real-world discovery while earning points and interacting with community organizations.

How did they do it?

- **Gamifying reading.** Questyinz integrated avatars, badges, and interactive quests to engage children who were less motivated by traditional reading programs.
- **Starting with a pilot.** The program launched on a small scale in 2013, then expanded across more than 40 regional libraries after strong early participation.
- **Building community partnerships.** Collaborations with organizations like the Pittsburgh Zoo & Aquarium and Pittsburgh Ballet Theatre created authentic, locally connected content for quests.
- **Securing long-term support.** Foundation funding allowed the team to improve the platform continuously and focus on quality and accessibility.

What did they learn?

- **Flexibility enables access.** Allowing children to engage from home, while traveling, or online made the program more accessible for families.
- **Games motivate reluctant readers.** Interactive elements like badges, avatars, and quests encouraged participation from students who avoided traditional reading logs.
- **User feedback is key.** Features like audio support and online journals emerged from observing how students interacted with the platform.
- **Reading supports skills.** The program supported not only literacy, but also research, curiosity, and independent learning habits.

How might you do it, too?

- **Use technology intentionally.** Interactive tools can deepen engagement when they are thoughtfully connected to learning goals.
- **Make it anytime, anywhere.** Programs that work across locations and schedules are more accessible to families with varied routines.
- **Don’t reinvent the wheel.** Seek out free, research-backed resources.



Learn more at
<https://bit.ly/442Ecu0>



Rec2Tech

What if neighborhood recreation centers became gateways for learning where young people could explore virtual reality, healthcare technology, coding, and engineering?

“[City recreation centers] were centers of community and trusted resources. We were meeting youth where they were.”
— Matt Hannigan, Co-Founder, The Sprout Fund



Photo: The Sprout Fund



What is it?

Rec2Tech transformed five Pittsburgh recreation centers into technology-enhanced learning spaces to address the digital divide. A coalition of public, private, and nonprofit partners—including The Sprout Fund and the City of Pittsburgh—engaged more than 100 youth and created a national blueprint for cities seeking to repurpose underutilized community spaces.

How did they do it?

- **Reimagining reality.** Recreation centers were already the center of neighborhood life, where students and families connected. Reimagining these places provided the grounding for success.
- **Assembling teams.** Classroom teachers, informal educators, learning scientists, technologists, and community stakeholders teamed up to activate each rec center.
- **Right-sizing.** Instead of starting with expensive capital improvements, the team opted for a week-long demonstration that could capture public imagination while setting up partners for success. Each site tested different ideas, providing multiple proof points.
- **Documenting, learning, and sharing.** Partners from the University of Pittsburgh School of Education conducted youth surveys and interviews to create a comprehensive report for the National League of Cities and other municipalities seeking to replicate the model.

What did they learn?

- **Infrastructure is critical.** WiFi in the rec centers was less than optimal. Networks had to be enhanced so that youth could use Chromebooks for coding projects.
- **Train existing staff.** Sustainability required getting city parks employees on board and trained, rather than bringing in outside educators for a demonstration.
- **Consider the handoff.** A critical success factor was the deliberate transfer of ownership after the demonstration ended to the City of Pittsburgh, cemented by the creation of a dedicated “Rec2Tech Coordinator” role within the city’s parks department.
- **Diversify funding.** Rec2Tech secured its financial future by moving beyond its initial corporate sponsorship to cultivate a “braided” model blending public, private, and philanthropic support.

How might you do it, too?

- **Find your partners.** Cultivate partnerships and activate people’s strengths. What unique assets and relationships does your community already have?
- **Start small.** Concentrate your demonstration in a way that’s self-contained and sets everyone up for success without overextending capacity.
- **Identify your champions.** Who will push this forward when things change? Recognize you may create something excellent that still needs an anchor organization to steward and sustain it.
- **Document it for others.** Rigorous documentation helps others learn from both successes and stumbles.



Learn more at <https://bit.ly/3S12pOF>



Reefbot

Part underwater adventure, part science experiment, Reefbot invited children to explore coral reefs while teaching themselves—and their computers—how to recognize marine life.

“Build a project that knows its audience—kids—while teaching unexpected lessons. Marrying those two is what’s compelling. You can solve two things at the same time.”
— Justine Kasznica, Project Leader, Reefbot



Photo: Carnegie Mellon University



What is it?

Reefbot was a remote underwater vehicle that kids could pilot through a coral reef tank at the Pittsburgh Zoo & Aquarium. While one child piloted the vehicle, another used its onboard camera to take photos of fish. The children then played a matching game to identify which fish they photographed. Every time they made a match, the computer got smarter.

How did they do it?

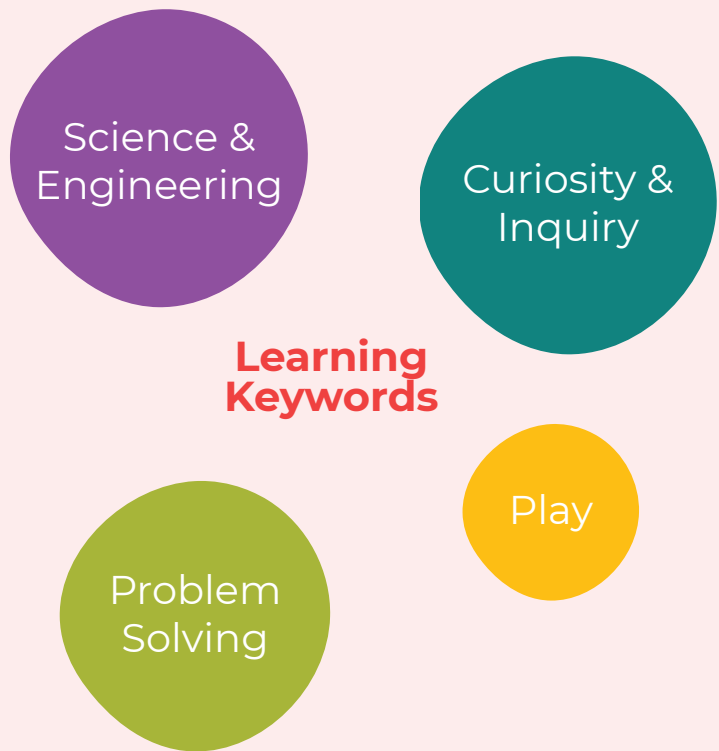
- **Multidisciplinary teamwork.** Carnegie Mellon University robotics students, Pittsburgh Zoo conservationists, coral reef experts, and submersible rover engineers all worked on the project.
- **Modifying commercial products.** The team took an off-the-shelf VideoRay submersible and rebuilt the hull, modified its ballast, incorporated a camera, and designed a custom shell that would be friendly and inviting to kids.
- **Real-world testing.** Rather than testing the vehicle in a lab environment, team leaders insisted on building an exhibit for kids to see how Reefbot performed in the real world.

What did they learn?

- **Ideas can launch careers.** Team members now work at the NASA Jet Propulsion Laboratory, at major machine learning companies, and in conservation research. Project leader Justine Kasznica built the nonprofit Keystone Space Collaborative to serve Pennsylvania’s growing space industry. “Every one of us can say Reefbot was a platform for our professional leap,” she says.
- **Humility (and a sense of humor) can help.** When trying to look their best on demo day with media and funders in attendance, the team polished Reefbot with alcohol swabs, accidentally shorting the circuit board! They regrouped and had the system running again just two weeks later.
- **There’s life beyond the finish line.** When the exhibit closed, Reefbot didn’t disappear—it went to Carnegie Mellon University, where college students still use it to study how robots can learn and work.

How might you do it, too?

- **Build for a captive audience.** Find an environment that’s already designed to be playful, educational, and mission-aligned. This is the perfect playground for adding unexpected learning opportunities.
- **You don’t need to start from scratch.** If you’re building a tech-heavy experience, consider the plethora of off-the-shelf products as a starting point. Customizing what already exists allows you to focus on creating the human experience.
- **Quarterback your multidisciplinary team.** Bring together experts who are excellent in their realms. Add a coordinator and collaboration becomes a superpower.



Learn more at <https://bit.ly/3QDm1rL>



Saturday Crafternoons at Assemble

Transforming Saturday afternoons into open-ended creative laboratories where young people learn by making, experimenting, and teaching.

“When we’re talking about science, we’re talking about how we observe the world. Art is how we communicate it. If we don’t have a way to communicate what we’ve observed, our science dies.”

— Nina Marie Barbuto, Executive Director, Assemble



Photo: Assemble



What is it?

Saturday Crafternoons are free, weekly drop-in programs that feature different guest experts, from artists to technologists to makers. Children themselves can serve as guest experts because, as Barbuto asks, “Who is more of an expert in slime-making than a fifth-grader?”

How did they do it?

- **Starting scrappy.** Assemble began as an all-volunteer effort, learning by doing and adapting quickly without formal infrastructure, fostering creativity and community accountability.
- **Reframing STEAM.** Assemble redefined disciplines as ways of thinking: science as observation, technology as human-made tools, engineering as making things in new ways, math as proof, and art as communication.
- **Scaffolding learning.** Projects were designed for drop-in participation while still building skills over time, allowing learners to engage at any level.
- **Connecting ecosystems.** Fellows and artists work across partner organizations, with residencies and stipends supporting creative leadership and linking hands-on learning to real-world opportunities.

What did they learn?

- **Child experts deserve compensation.** By paying young people to share their expertise in topics like slime-making or gaming, Crafternoons validate students’ knowledge and build genuine confidence.
- **The informal educator pipeline won’t build itself.** Assemble developed the Ramp Up Fellowship, a paid program for 18- to 24-year-olds who aspire to become the next generation of out-of-school-time educators.
- **Art makes science accessible, and vice versa.** Assemble’s framework positions art as essential. This integration helps participants see connections across disciplines rather than treating subjects as separate silos.

How might you do it, too?

- **Embrace volunteer beginnings.** Rather than waiting for perfect conditions, embrace an experimental mindset that also allows for authentic community responsiveness.
- **Treat everything as an experiment.** Allow for continuous adaptation and improvement. “Make your mistakes early. When you don’t know, it’s okay. But once you learn, you can’t go back. Once you know, you’ve got to do better,” says Barbuto.
- **Frame art as communication.** Understanding art as a method of communicating what students learn helps educators integrate creative expression naturally, rather than treating it as separate from academic content.



Learn more at
<https://bit.ly/4usuGuS>



SimCoach Games Skill Arcade

What if a mobile game could uncover career potential? SimCoach Games turns job exploration into gameplay, helping students discover skills, pathways, and futures they never considered.

“Games give players agency. We are trying to use these tools to tap into what a kid is capable of and spark what is possible.”

— Jessica Trybus, Founder, SimCoach Games



Photo: Remake Learning

What is it?

SimCoach Games creates free games that connect students to real-world jobs, training programs, and employers. Through gameplay and apprenticeships, young people build technical, creative, and professional skills while exploring industries that range from healthcare to construction to game design.

How did they do it?

- **Building with young people.** Students participated in game development, playtesting, and quality assurance, shaping games through direct collaboration rather than passive feedback.
- **Partnering with employers.** SimCoach worked with regional companies and workforce organizations to align gameplay with actual job skills and career pathways.
- **Leveraging regional networks.** Connections across Pittsburgh's Remake Learning ecosystem helped the organization refine games and reach students through schools, libraries, and community partners.
- **Removing barriers.** Games were freely available across multiple platforms and aligned with educational standards so they could be used widely in classrooms and informal learning settings.

What did they learn?

- **Games can predict success.** When the regional workforce development agency Partner4Work used the game *Booey's* to screen coding bootcamp applicants, scoring proved far more predictive of program success than resumes or interviews.
- **Local relevance makes it real.** Connecting games to nearby employers, wage information, and training opportunities helped students imagine realistic futures in their own communities.
- **Good games mirror effective learning.** Clear goals, immediate feedback, and collaboration reflected effective educational design principles.

How might you do it, too?

- **Co-create with students.** Don't wait until you're in user testing. Young people can contribute meaningfully to initial design and development processes.
- **Connect to real outcomes.** Track data, award meaningful badges, and link achievements directly to opportunities like job offers.
- **Build industry partnerships early.** Collaboration with workforce organizations and employers strengthens relevance and long-term impact.
- **Focus on exploration and discovery.** Many students need help recognizing their own interests and abilities before pursuing career pathways.



Learn more at
<https://bit.ly/4oiB4DC>



SLB Radio Productions Youth Media Center

What began as a free afterschool drop-in program for older teens grew into a vibrant youth media hub where young people create, produce, and tell stories through sound.

“A key goal is to make engagement irresistible. Whether co-hosting a podcast, creating an audio drama, or recording a song, we provide a context that helps youth engage with peers and the community.”

— Larry Berger, Executive Director, SLB Radio Productions



Photo: Remake Learning



What is it?

SLB Radio’s Youth Media Center is a 3,500-square-foot production space where teens explore audio production, broadcasting, and media creation. Equipped with recording studios, editing stations, and flexible learning spaces, the center uses media-making as a tool for creativity, communication, and self-expression.

How did they do it?

- **Structuring flexibility.** When the initial “Open Studio” concept proved too broad, SLB pivoted to offer specific activities alongside open-ended sessions. Attendance grew after the adjustment.
- **Letting youth lead.** SLB established a Youth Advisory Council, which created its own bylaws and wrote a code of conduct for how to behave at the studio.
- **Illuminate Pathways.** To help staff understand what participants want to achieve, SLB developed pathways similar to a badging system to identify students’ interests.
- **Studying what works.** The SLB team visited other media centers across the U.S. to guide the center’s growth from the original 500-square-foot space into its current 3,500-square-foot center.

What did they learn?

- **Adult trust requires balance.** “There’s a fine line,” Berger explains. “It can’t be pure anarchy, but it can’t be command and control, either.”
- **Youth ownership is essential.** Rather than adult-driven programming, giving youth genuine agency made their engagement more authentic and meaningful.
- **Free doesn’t always mean accessible.** “Our programs are free, but if you’re poor, have to work, or don’t have somebody to drive you, it’s not free. It’s costing you,” says Berger. The insight led to SLB providing stipends when possible.
- **Specificity drives participation.** Broad, open-ended invitations don’t always work with teenagers. Clear, specific activities with defined outcomes create the structure that helps teens engage.
- **Staff care matters.** Berger wants staff to be “front and center with kids,” so taking care of staff needs is essential.

How might you do it, too?

- **Focus on underserved age groups.** Identify demographics that others avoid and create programming specifically designed for their developmental needs and interests.
- **Creativity opens doors.** Rather than teaching media production for its own sake, use creative tools to make other forms of learning and social interaction irresistible.
- **Build in authentic youth governance.** Create structures where young people have real decision-making power and ownership of the program.
- **Illuminating pathways.** Create systems that help participants understand their options and progression, allowing for both casual participation and deeper engagement.
- **Design for access.** Consider transportation needs, economic constraints, and competing demands on young people’s time.



Learning
Keywords



Learn more at
<https://bit.ly/4v2DPvg>



Squonk

What if art felt less like something to admire and more like something to join? Squonk turns performance into a strange, joyful invitation to imagine and make.

“We want [kids] to be inspired and think, ‘I could do that.’ I think that’s a really important message to get across to people.”

— Jackie Dempsey, Artistic Executive Director, Squonk



Photo: Squonk

What is it?

Squonk is a Pittsburgh-based multimedia performance troupe blending music, theater, visual art, and spectacle. Through outdoor performances and library workshops, Squonk makes experimental art feel accessible, playful, and possible for audiences who might never enter a traditional theater.

How did they do it?

- **Combining strengths.** Co-founders Jackie Dempsey and Steve O’Hearn began by blending their skills in music, theater, and visual design, then experimented their way toward a new form of performance.
- **Choosing mission over money.** After a Broadway experience with commercial producers, Squonk became a nonprofit so the troupe could craft work on its own terms.
- **Leveraging public spaces.** Outdoor festivals and open performances allowed Squonk to reach people who might not seek out theater.
- **Workshopping through workshops.** Library-based workshops invited young people to engage at their own pace, making creativity feel approachable rather than intimidating.

What did they learn?

- **Forget the front doors.** Free outdoor performances reached more diverse audiences than traditional theater settings.
- **Art is an invitation.** Squonk’s do-it-yourself aesthetic helped audiences see art as something they could try, not something distant or untouchable.
- **Libraries are key.** Libraries are perfect public spaces to get started. They provide trusted access points for young people and families.
- **Curiosity is contagious.** When participants saw how unusual materials and ideas could become part of a performance, many became more willing to experiment themselves.

How might you do it, too?

- **Begin with what you love.** Let existing skills, questions, and collaborations become the starting point for experimentation.
- **Aim for accidents.** Show up in spaces where your audience already gathers. Parks, festivals, and libraries invite accidental discovery.
- **Keep the process visible.** Letting audiences see how something is made can make creative work feel more approachable.
- **Design for access.** Create experiences where people can watch, wander, engage, or join without needing prior knowledge or permission.



STEM Excellence Pathway

What if improving STEM education started with better questions instead of new programs?

“Science centers can play a really meaningful role in education, working directly with students, schools, and companies to coordinate and align what everyone is doing for a common outcome—and for the benefit of students.”

— Jason Brown, Henry Buhl, Jr. Director, Kamin Science Center



Photo: Kamin Science Center



What is it?

The STEM Excellence Pathway was a free strategic planning framework developed by the Kamin Science Center to help schools evaluate and strengthen STEM education. Using a collaborative self-assessment process, schools examine curriculum, teaching practices, career connections, and community engagement to build actionable improvement plans.

How did they do it?

- **Aligning existing programs.** The science center unified career exploration, science fairs, maker education, and professional learning efforts under a shared STEM strategy.
- **Building shared frameworks.** The STEM Excellence Pathway brought educators, administrators, industry professionals, and community partners together to assess and strengthen STEM learning.
- **Connecting to careers.** The framework helped educators integrate project-based learning, industry partnerships, and real-world applications into classroom experiences.
- **Sharing effective tools.** The science center designed the pathway as a free resource so that schools and districts could adapt the process for their own local needs.

What did they learn?

- **Connection expands opportunity.** Students are more likely to imagine futures in STEM when they encounter professionals and pathways that feel relevant and attainable.
- **Keep evolving.** Rapid changes in science and technology require schools and institutions to adapt quickly and rethink traditional approaches.
- **Integration strengthens impact.** Embedding STEM principles across programs, exhibitions, and partnerships creates a more coherent learning experience.
- **Mission alignment matters.** New partnerships and funding opportunities are most effective when they reinforce an organization's educational purpose.

How might you do it, too?

- **Map what already exists.** Stronger systems often emerge from aligning successful programs rather than creating new ones.
- **Convene diverse stakeholders.** Educators, students, employers, and community organizations each bring different perspectives that collectively strengthen STEM planning.
- **Connect concepts to application.** Hands-on projects and career exploration opportunities help students understand how STEM knowledge applies beyond school.
- **Build partnerships strategically.** Collaborations with schools, companies, and community organizations can expand access, expertise, and long-term sustainability.

Science & Engineering

Systems Thinking

Learning Keywords

Career Pathways

Collaboration



Learn more at <https://bit.ly/4owbZVV>



Studio Stream

In this mobile studio, teens record original content on professional equipment while simultaneously learning electronics and soldering skills by building solar-powered speakers.

“The moment they would push the on switch, you could see the participants light up. They had assembled this thing and soldered it together, and it worked!”

— Sharon Massey, Co-Founder, Local X Change



Photo: Remake Learning

What is it?

Studio Stream is a mobile recording studio housed in a modified Japanese mini-truck. Created by artist-educators Sean Derry and Sharon Massey, the roving media-making project reaches young people in rural communities across Western Pennsylvania.

How did they do it?

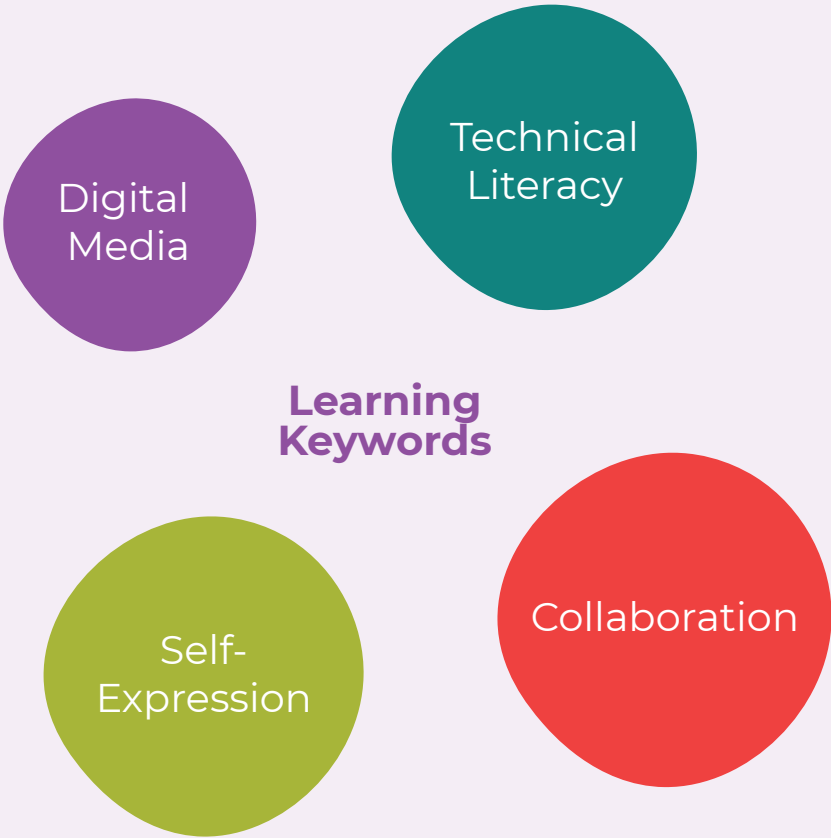
- **Taking small steps.** Massey and Derry spent years honing their skills on smaller-scale projects that provided the foundation for working with teens. Patience proved essential.
- **Reducing barriers.** The team produced extensive signage to help teens understand the project deeply enough to want to participate.
- **Keeping an artist's eye.** To maintain conceptual and aesthetic consistency, the project team approached the mini-truck's studio and speaker kits as sculptural works.
- **Leveraging multiple entry points.** The project's layered approach provided access through various interests. Students found “front doors” through recording, then discovered they were learning electronics, too.

What did they learn?

- **Peer influence is priceless.** Cool equipment alone can't overcome social hesitation. “Our [initial] idea that all teenagers were going to flock to it” failed, says Derry. Hiring teens to invite friends created a critical mass that helped others feel comfortable approaching the truck.
- **Making things matters.** To the project team's surprise, building speakers proved to be as empowering and valuable to young people as creating and broadcasting original recordings.
- **Help kids share their work.** Zines with excerpts and illustrations can provide tangible sharing mechanisms alongside the digital radio station.

How might you do it, too?

- **Find your collaborator.** Finding someone who gets excited about crazy ideas can make a big project manageable.
- **Practice patience.** Build through smaller projects before tackling big visions.
- **Use peer power.** Hire or recruit representatives from your target population as co-facilitators.
- **Consider fiscal agents.** If institutional red tape creates barriers, community-based fiscal agents can provide nonprofit status without bureaucracy.



Summer Welding Boot Camp

Amid glowing metal and flying sparks, teenagers at the Industrial Arts Workshop learn more than welding. Through public art and collaborative projects, young people discover confidence, purpose, and the power of making things together.

“Our students become more independent, but also more aware of how to be a good team member and to be a supportive person in the room.”

— Tim Kaulen, Executive Director, Industrial Arts Workshop

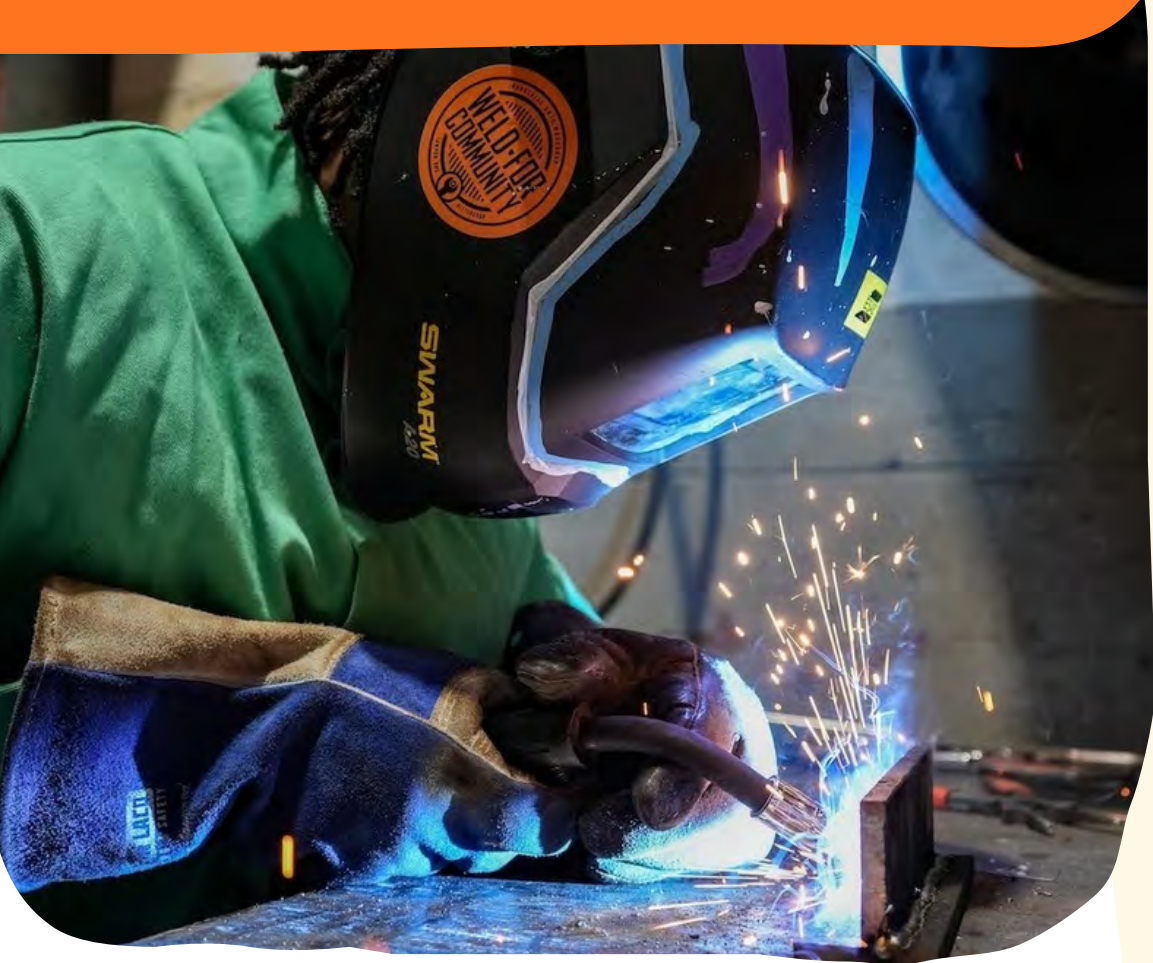


Photo: Remake Learning



What is it?

Summer Welding Boot Camp is a 10-week program where teens learn welding, explore career pathways, and create collaborative public art. Combining technical training with community engagement, the program helps young people build practical skills while contributing to neighborhood spaces.

How did they do it?

- **Starting with art.** Industrial Arts Workshop grew from artists working together on public sculpture projects and discovering that creative collaboration naturally supported teaching and learning.
- **Testing through mobile programs.** Before opening a permanent facility, the team spent five years running a traveling welding program that built community relationships and refined the model.
- **Intentional growth.** Industrial Arts Workshop expanded gradually, taking time to establish volunteers, participants, and sustainable programming before scaling up.
- **Following student curiosity.** Staff continuously adapt programming based on students' interests, using field trips, guest speakers, and new projects to connect learning to real-world career pathways.

What did they learn?

- **Uncertainty can be a strength.** Adapting to unexpected challenges and student interests became a core part of the educational process.
- **Learning is collaborative.** Treating students as co-creators encourages curiosity, problem-solving, and shared ownership.
- **Authenticity builds trust.** Honest communication and genuine relationships help young people feel respected and supported.
- **Culture matters as much as skills.** The workshop's nurturing environment supports emotional growth and confidence alongside technical development.

How might you do it, too?

- **Listen before expanding.** Spend time understanding community interests and needs before investing in permanent programs or facilities.
- **Let students shape the experience.** Build flexibility into programming so participants' interests can guide projects and opportunities.
- **Normalize not having all the answers.** Modeling curiosity and collaborative problem solving encourages deeper engagement.
- **Connect learning to public purpose.** Community-facing projects give technical skills meaning and help students see the broader impact of their work.



Learn more at
<https://bit.ly/4vHs8Kn>



Take a Shot at Changing the World

A student filmmaking contest used the story of the polio vaccine to ask a bigger question: how might the next generation change the world?

“The teachers thought, ‘Oh, we can’t do this. We don’t know how to teach film.’ I said, ‘But the kids know how!’”

— Carl Kurlander, Co-Founder, Steeltown Entertainment Project



Photo: Steeltown Entertainment Project



What is it?

Take a Shot at Changing the World was a video contest inviting students to create films about the fight against polio, inspired by Jonas Salk’s legacy. In partnership with global health organizations, the program connected past breakthroughs to present challenges, helping young people find their voice and see their own potential.

How did they do it?

- **Starting with story.** Filmmaker Carl Kurlander’s documentary *The Shot Felt ‘Round the World* told the story of how an unknown doctor in a basement lab developed a vaccine that changed everything. The story became the foundation of the student competition.
- **Positioning students as directors.** The program centered on trusting students as creators and sought teachers who were comfortable with empowering students to participate as self-directed leaders.
- **Amplifying through partners.** Collaboration with networks like Remake Learning and Rotary International amplified the project, allowing students to make their own videos while connecting them with models for collective action.
- **Offering incentives.** The contest offered student winners and their schools a \$5,000 cash prize, attracting students with real incentives and recognition.

What did they learn?

- **Trust students.** Students need adults to trust their capability and inspire their voice. Participating youth learned critical thinking and creative problem-solving skills in doing their own research on the subject and making their own videos.
- **Youth voice is paramount.** Whether it’s polio or any other story, the real purpose is inspiring young people to discover they have a voice—and that their efforts matter.
- **Schools need motivation, too.** Securing additional funds allowed prize money to be split between the student and the school to motivate school leaders and teachers to participate.

How might you do it, too?

- **Use modern platforms.** Today’s students live on TikTok and YouTube. Tomorrow’s students might flock to someplace else. Meet them where they are.
- **Know your role.** Students know how to make videos and create content. Teachers don’t need to be experts in everything, but instead create the conditions for creativity and learning.
- **Make it matter.** Create authentic stakes with real money, real recognition, and real audiences. Students recognize when projects address actual challenges rather than existing only for the classroom.
- **Connect local to global.** Every community has stories that connect to bigger challenges. Use local history and heroes to inspire student work addressing universal themes.



Learning
Keywords



Learn more at
<https://bit.ly/4vMYXG5>



The Citizen Science Lab

What if every student had authentic laboratory experiences in which they saw themselves as scientists?

“The moment a student sits down and puts on a real lab coat, real gloves, real safety glasses, and starts using real glassware or laboratory equipment, there’s a transformation that occurs.”

— Dr. Andre Samuel, President & CEO, The Citizen Science Lab



Photo: Remake Learning



What is it?

The Citizen Science Lab is a hands-on laboratory where young people explore the life sciences. Programs emphasize real-world projects like SeaPerch Wave Voyagers, where students learn to use real tools and materials to build an aquatic remotely operated vehicle amid strict design constraints.

How did they do it?

- **Meeting community needs.** Recognizing a need for more hands-on lab experience, the founders created a pilot program to bring young people into the Duquesne University biology labs.
- **Leveraging academic partnerships.** Institutions like Duquesne University and Urban Innovation21 helped the project team learn to navigate the world of nonprofits.
- **Targeting outreach.** Rather than recruiting as widely as possible, The Citizen Science Lab partnered with nearby schools to enroll students from low-income communities.

What did they learn?

- **Authenticity matters.** By partnering with scientists from real laboratories, The Citizen Science Lab creates opportunities for students to gain work-ready skills and contribute to active research projects.
- **Students vote with attendance.** School attendance went up on days when students knew they’d be going to The Citizen Science Lab. Feedback like this validates the program’s impact.
- **A.B.E.: Always Be Evolving.** “We are a biology-based organization rooted in biology, and one of the basic principles of biology is evolution,” says Dr. Samuel. “Evolve or become extinct, right?” This mindset drives continuous improvement and program development.

How might you do it, too?

- **Invest in quality.** Recognize your strengths and your weaknesses, then find quality people to match. This includes hiring professionals for specialized needs rather than trying to do everything yourself.
- **Design for access.** From the beginning, the organization took steps to ensure there would be no cost to families.
- **Stay current.** To keep programming fresh and relevant to current scientific practice, Dr. Samuel says, “We are always looking out for new technology and what else we can bring to the lab.”



Learn more at
<https://bit.ly/4xsDPqm>



The Finch Robot

What if educational technology tools were designed with the teachers who use them? By partnering with educators, BirdBrain brings advanced technologies like the Finch Robot to classrooms.

“I learned about the importance of listening to teachers and students before you assume that they want this or that. Ask them, then show them possibilities, and iterate.”

— Dr. Tom Lauwers, Founder, BirdBrain Technologies



Photo: BirdBrain Technologies

What is it?

The Finch Robot is a teaching tool for students from kindergarten to college. From beginner, block-based coding platforms to advanced, text-based languages, students learn computer science by programming the Finch to navigate mazes, complete tasks, and perform scripted scenes.

How did they do it?

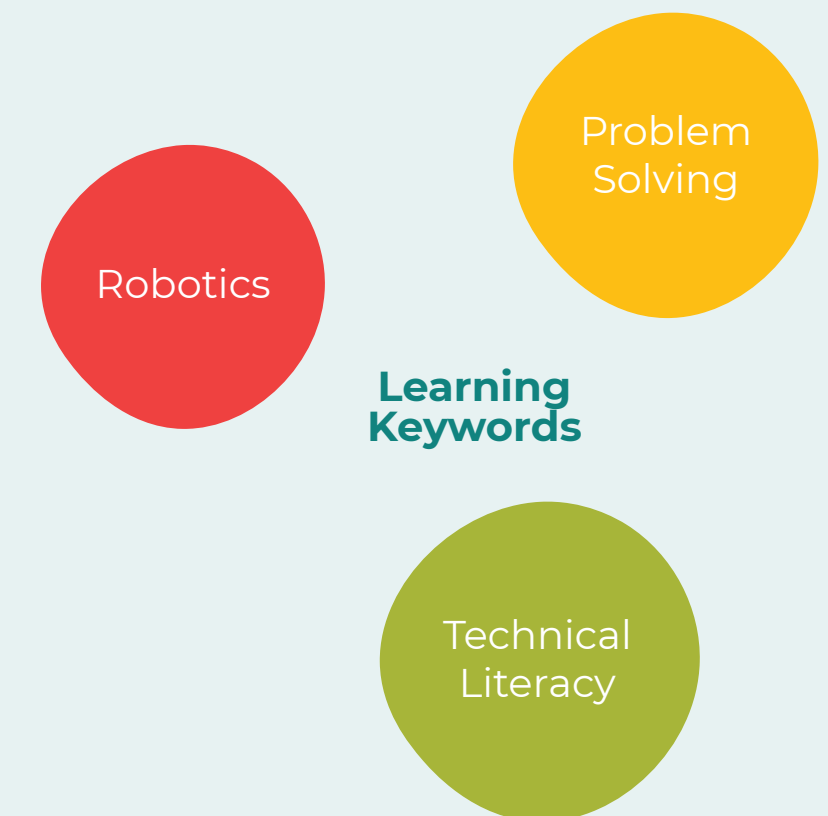
- **Evolving from research.** Founded by Dr. Tom Lauwers, BirdBrain Technologies grew from PhD research focused on using robotic technologies in introductory computer science education to broaden participation in STEM.
- **Listening to educators.** Lauwers began by interviewing 34 computer science educators to understand real classroom needs before developing the first prototype.
- **Prototyping.** Early versions of the Finch were feature-rich and tested across diverse settings, from elementary classrooms to community colleges, to refine usability.
- **Broadening access.** The technology was designed to expand participation in STEM by making computer science approachable for a wide range of learners.
- **Designing for all.** The Finch allowed beginners, including pre-readers, to get started easily while supporting more advanced programming for older students.

What did they learn?

- **Listen before you build.** The research process revealed that successful educational technology requires deep understanding of actual classroom realities.
- **Design matters as much as functionality.** Developers sent design sketches to high school teachers so their students could vote on the robot's final appearance.
- **Accessibility enables innovation.** By focusing on being affordable (and not just impressive), the Finch is within reach for most classrooms from kindergarten through high school.
- **Acquisition can accelerate mission.** When RW Thrive acquired BirdBrain Technologies, the Finch became part of a more complete educational package, while allowing the founder to return to research and development.

How might you do it, too?

- **Start with community needs.** Systematically interview end users before designing, then involve them in iterative testing and design decisions.
- **Embrace constraints.** Cost and practical limitations often drive more innovative and accessible solutions than unlimited budgets.
- **Design for the full spectrum.** Create tools that work for beginners, but don't limit advanced users. The “designing for all” principle ensures broad adoption and sustained engagement.
- **Enable spin-offs.** Lauwers supported employees who started CodeJoy, demonstrating how successful projects can spawn allied innovations.
- **Consider acquisition strategically.** It can be a tool for scaling impact while allowing founders to return to their strengths.



Learn more at
<https://bit.ly/4e3cldB>



The KRUNK Movement

The KRUNK Movement turns music, storytelling, and lived experience into tools for expression, advocacy, and change.

“Our message is important and something people need to hear, especially in this environment.”

— Micha Pinnix, 17, KRUNK Artist



Photo: Center of Life

What is it?

The KRUNK Movement is a youth arts program at Center of Life, a community-empowerment organization in the Hazelwood neighborhood of Pittsburgh. Here, teenagers create music, podcasts, and visual art addressing issues like climate justice, economic inequality, and community health. Students are paid as working artists while developing creative, technical, and professional skills.

How did they do it?

- **Treating students as professionals.** Students were paid as employed artists, reinforcing that their creativity, labor, and time carry real value. They learned industry skills, professionalism, and financial literacy.
- **Building mission-aligned partnerships.** Long-term collaborations with organizations like Green Building Alliance connected youth artmaking to environmental and community issues.
- **Creating real products for real audiences.** Students released music on streaming platforms, performed nationally, and produced podcasts for public audiences.
- **Rooting projects in reality.** Albums and performances centered issues that students understood personally, including environmental justice, economic hardship, and resilience.

What did they learn?

- **Compensation changes the game.** Paying students increased commitment while reinforcing professionalism and financial literacy.
- **Youth leaders still need support.** Student creativity thrived when paired with adults who provided technical expertise, mentorship, and industry knowledge.
- **Local authenticity builds global solidarity.** Projects grounded in local experiences resonated across cultures and communities, including international collaborations with student artists in Uganda.
- **Real audiences raise expectations.** Public performances and published work encouraged students to invest in quality and craft.

How might you do it, too?

- **Invest in young people.** Find funding to pay students. It signals that their contributions have value.
- **Raise the stakes to raise expectations.** Making art for public audiences gives students a reason to rise to the occasion.
- **Let students tackle what matters to them.** Young people are often most engaged when projects connect directly to the challenges and experiences shaping their communities.

Self-Expression

Leadership & Advocacy

Learning Keywords

Purpose & Meaning

Community Connection



Learn more at
<https://bit.ly/49Pst5A>



The Labs @ Carnegie Library of Pittsburgh

Imagine a three-circle Venn diagram where interest-driven exploration intersects with peer connections and creative opportunities. At the center lies learning that honors teens’ curiosity and agency.

“No one has to be an expert in anything. You just have to know what it is and know how to introduce it. It’s important to show teens that you don’t know everything and that you’re there to learn together.”

— Anne McLaughlin, Library Services Supervisor, Carnegie Library of Pittsburgh



Photo: Remake Learning



What is it?

The Labs @ Carnegie Library of Pittsburgh provide teens with access to creative technologies and mediamaking equipment, plus the guidance of skilled library staff, making the library a place of unlimited learning. The annual Teen Media Awards competition celebrates young creators.

How did they do it?

- **Reimagining space.** Beginning in 2012, the Carnegie Library of Pittsburgh redesigned youth areas in branch locations as media-making labs equipped for music, video, game design, and more.
- **Supporting and training mentors.** The initiative started with visiting specialists leading workshops, then transitioned to training all teen-serving staff to support self-directed learning.
- **Learning together.** As they learn alongside the teens, frontline library staff continuously evolve offerings, designing new kit components and making operational improvements.
- **Scaling across systems.** What began in select branches expanded into a connected learning initiative across all 18 of the Carnegie Library’s “Teenspaces.”

What did they learn?

- **Remove barriers.** Registration requirements, parent signatures, fees, and scheduled attendance prevent teens from exploring their potential.
- **Focus on exploration.** “We’re really focused on the process rather than the product,” says Anne McLaughlin.
- **Listen to the front line.** The most successful improvements came from staff who interact with teens daily, not upper-level administrators.

How might you do it, too?

- **Reimagine access.** Examine barriers to youth participation. The Labs’ model demonstrates how lowered barriers can dramatically increase engagement.
- **Train facilitators, not experts.** Rather than hiring specialists, invest in training caring adults to become comfortable facilitators. This approach is more sustainable and creates authentic relationships.
- **Design for flexibility.** Successful teen programming requires flexibility in timing, structure, and outcomes rather than scheduled, regimented classes.
- **Create pathways, not destinations.** Provide multiple entry points and progression pathways while honoring teens’ autonomy to engage at their comfort level.



Learn more at
<https://bit.ly/4vHRJmE>



transformED STEAM Lending Library

What if teachers had a “try before you buy” library of tools and equipment ranging from robotics kits and coding tools to maker materials and learning games?

“This is similar to very purposeful play. And just because learners are having fun doesn’t mean it’s not productive.”

— Rachel McVeagh, Instructional Innovation Coordinator, Allegheny Intermediate Unit



Photo: Remake Learning



What is it?

The transformED STEAM Lending Library at the Allegheny Intermediate Unit is a collection of tools and resources teachers can borrow, explore, and implement without the financial risk of purchasing unfamiliar equipment. Peer-learning workshops help teachers learn to use the technology meaningfully across different content areas and grade levels.

How did they do it?

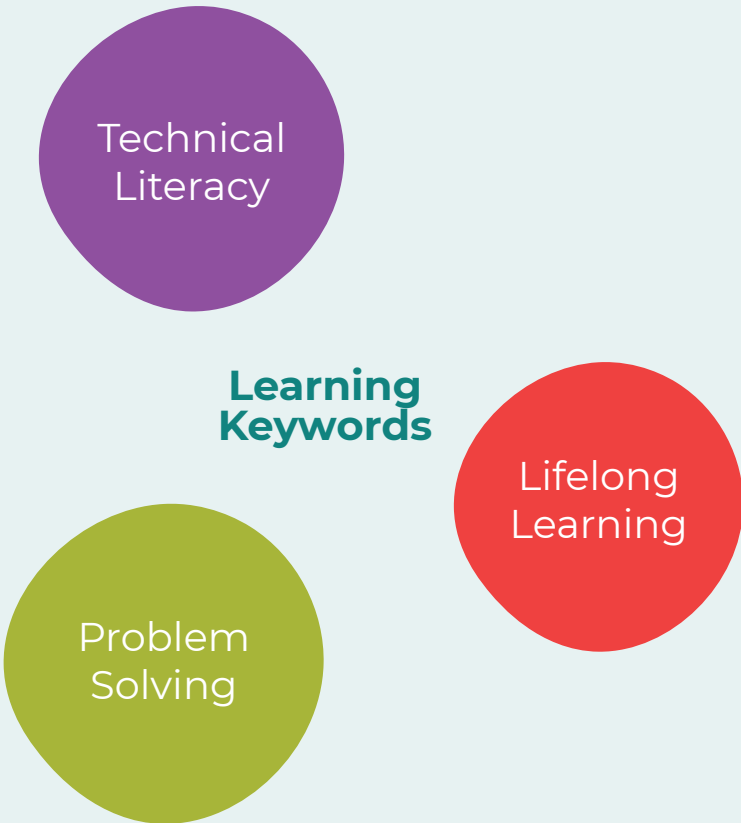
- **Providing essential tools.** The lending library emerged from a common gap: teachers left professional development inspired and ready to try new approaches but lacking access to the tools they needed to implement new ideas.
- **Integrating professional development.** In partnership with the Pittsburgh Penguins Foundation, transformEd combined hands-on workshops with a lending library, pairing training with immediate access to technology.
- **Designing for accessibility.** Guided by MIT’s “high ceiling, low floor” framework, the library offers tools for beginners and advanced users alike, supporting a range of skill levels.
- **Letting teachers lead the way.** The program adapts based on educator feedback and usage, ensuring the collection remains relevant and widely used.
- **Sharing what works.** The model has expanded across Western Pennsylvania through partnerships with other intermediate units.

What did they learn?

- **Create comfort with risk.** Professional development is a safe space for educators to experiment, fail, and practice a growth mindset they can model for their students.
- **Design for adaptability.** Combining tech access, professional development, and supportive experimentation provides a roadmap for helping educators navigate future technological shifts.
- **Partnerships matter.** The simple idea for a tech lending library was made possible by the partnership of an education services agency and a local professional sports franchise foundation.

How might you do it, too?

- **Prioritize function in context.** Tools that require too much maintenance, have irreplaceable parts, or don’t work well in classroom settings are excluded from the collection.
- **Accessibility has multiple meanings.** It’s not just providing the physical tools, but also the confidence-building professional development and ongoing support.
- **Behind-the-scenes matters.** Updating firmware; replacing lost pieces; tracking inventory across dozens of circulating kits; and storing, maintaining, and charging devices is a big job.



Learn more at <https://bit.ly/3RSwno6>



Ultimate Play Day

What if a city treated play as essential infrastructure? Ultimate Play Day transforms parks and public spaces into giant intergenerational playgrounds for all ages.

“We have a real recess issue where it’s the first thing to be taken away if a child misbehaves, rather than the first thing to be leaned into.”

— Cara Ciminillo, Executive Director, Trying Together



Photo: Trying Together



What is it?

Ultimate Play Day is an annual community celebration hosted by Trying Together’s Playful Pittsburgh Collaborative. The event brings families, educators, artists, and community groups together for free play activities across Pittsburgh parks and public spaces, raising awareness of play as essential for learning, health, and human connection.

How did they do it?

- **Building organic partnerships.** Leaders from museums, parks, early childhood organizations, and community groups discovered shared values through small collaborations before formally creating the Playful Pittsburgh Collaborative.
- **Connecting sectors.** Using play as common ground, the Collaborative united organizations serving children, families, older adults, and neighborhoods.
- **Visible public events.** Ultimate Play Day became the Collaborative’s signature annual gathering, activating parks and public spaces with hands-on, all-ages activities.
- **Learning from national networks.** Participation in conferences and national play initiatives helped local leaders strengthen advocacy efforts and expand Pittsburgh’s playful learning movement.

What did they learn?

- **Play builds unlikely alliances.** A shared commitment to play helped organizations from different sectors find common language and purpose.
- **Public events can bring ideas to life.** Ultimate Play Day helped communities experience the benefits of play directly rather than discussing them abstractly.
- **Collaboration requires infrastructure.** Long-term partnerships require dedicated administrative support, coordination, and funding.
- **Play matters across generations.** Intergenerational activities reinforced that play supports learning, health, and connection throughout life, not just in early childhood.

How might you do it, too?

- **Start with shared values.** Build partnerships around common beliefs and allow collaboration to grow naturally over time.
- **Use public spaces creatively.** Parks, libraries, plazas, and community gathering places can become accessible sites for playful learning.
- **Create visible community celebrations.** Events like Ultimate Play Day raise awareness while giving families direct experiences with playful learning.
- **Connect local work to larger movements.** National networks and conferences can provide ideas, validation, and momentum for local initiatives.



Learn more at <https://bit.ly/49NV3nS>



Village Games

Designing games with a lofty goal: revenue-generating sustainability that puts money in kids' pockets while disrupting cycles of generational poverty through education.

“We do for the children in the community what we would do for our own children.”

— Walter Lewis, Executive Director, Homewood Children's Village



Photo: Remake Learning

What is it?

Village Games is a game-design program by Homewood Children's Village where teenagers design, produce, and sell educational board and card games that create positive change. Focusing on literacy skills and real-world impact, the program uses analog games to dramatically reduce the learning curve, allowing kids to create complete games in weeks.

How did they do it?

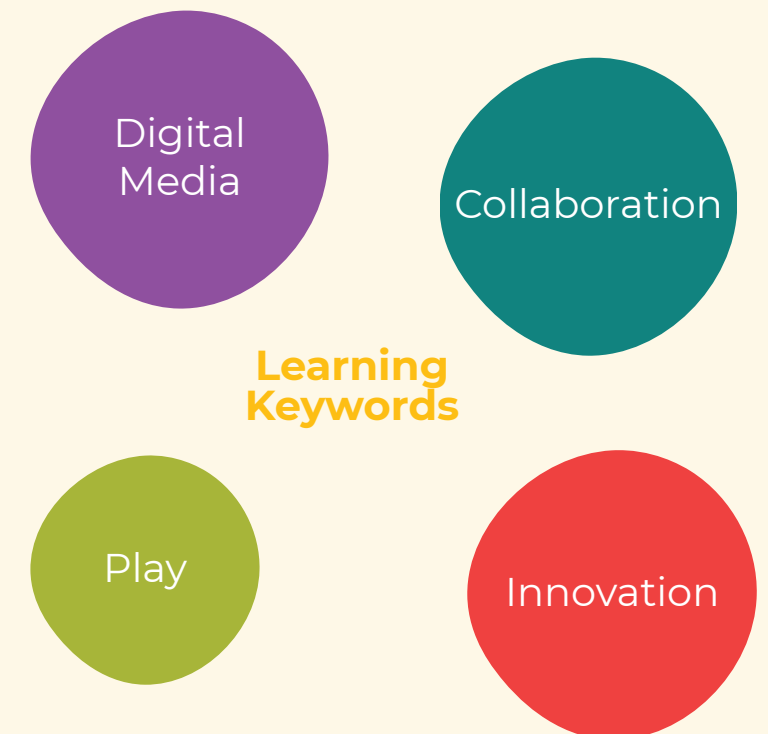
- **Adaptive listening.** Educators realized that coding's learning curve was too steep for short, introductory programs, but that board and card games let kids create their concepts quickly. This also created opportunities to modify existing games by changing their contexts and rules.
- **Expanding roles.** Adding business, marketing, and production aspects to game design helped every student find ways to contribute, even without prior interest in games.
- **Centering play.** Village Games moved from a peripheral project to a central way of doing business. Staff meetings now include game-based activities, and the organization's curriculum is infused with play-based opportunities.

What did they learn?

- **Confidence can be transformative.** When a 14-year-old creates something and an adult says, “I couldn't have done that,” students level up. That confidence can translate when they encounter challenges in real life.
- **“Soft” skills matter.** Employers don't teach teamwork, accountability, or showing up on time. Team-based projects develop these skills by necessity.
- **Kids need purpose.** Students show up differently when they know their work has meaning. Teenagers creating games that will help other kids with literacy creates authentic engagement.

How might you do it, too?

- **Look for ways to ease the learning curve.** Often, the most effective projects aren't the most complicated. Instead, they provide an entry point for diving deeper.
- **Give kids real-world projects.** Don't wait until kids are older to give them challenging work. At every age, they can tackle assignments that develop their skills and make a real-world difference.
- **Share your gifts.** Everyone can make a difference. “Organizations alone can't transform communities. It takes all of us—parents, schools, employers, legislators—thinking differently, and kids stepping outside of their comfort zones,” says Lewis.



Learn more at
<https://bit.ly/4vMXdg1>



Wisdom Corridors

What if school hallways could teach empathy? Wisdom Corridors turn everyday spaces into student-designed installations that tell stories, teach life lessons, and nurture human connection.

“Don’t be afraid to try something new and fun.”

— Scott Miller, Principal, Avonworth Primary Center



Photo: Avonworth School District



What is it?

Wisdom Corridors are a student-led storytelling initiative inspired by Project FUEL’s global “Out of Syllabus” model. Groups of students called “Wisdom Squads” interview community members, collect life lessons, and transform school spaces into public installations that celebrate listening, empathy, and shared wisdom.

How did they do it?

- **Building international partnerships.** Project FUEL facilitators in India trained Pittsburgh-area students virtually, sparking cross-cultural collaboration that connected schools across continents.
- **Centering student design.** Each Wisdom Squad decided how to display collected stories, creating installations that reflected the character and creativity of its school community.
- **Listening deeply.** The project emphasized empathy, relationship building, and meaningful conversation over collecting large numbers of interviews.
- **Expanding through grant support.** Multi-year funding supported training, installations, and new tools like the “Young and Wise Wisdom Corridor Deck,” a student-designed conversation card game.

What did they learn?

- **Informal spaces encourage honesty.** Conversations in playgrounds, parks, and community gathering places often produced deeper and more authentic storytelling.
- **Global collaboration requires flexibility.** Coordinating across cultures, calendars, and time zones demanded patience and adaptability from everyone involved.
- **Relationships transform learning.** Students developed empathy, friendship, and ethical storytelling skills through the interview process.
- **Patience strengthens partnerships.** Respecting school timelines and approval processes ultimately made implementation more sustainable.

How might you do it, too?

- **Give students creative ownership.** Allow young people to shape how stories are collected, interpreted, and displayed.
- **Teach listening intentionally.** Practice interviewing and conversation skills before beginning community storytelling.
- **Share stories in multiple formats.** Installations, QR codes, books, and games can extend participation and deepen engagement.
- **Build room for iteration.** Long-term support and flexible timelines allow projects to evolve through experimentation and reflection.



Learn more at <https://bit.ly/4v7Gkg2>



WORDPLAY!

What if a bus stop could become a place for storytelling, laughter, and learning? WORDPLAY! transformed ordinary waiting time into moments of connection between children and caregivers.

“There’s all this time where kids and families have to wait. So, let’s think of something to do while we’re waiting!”
— Margy Whitmer, Former Producer, Fred Rogers Productions



Photo: Remake Learning



What is it?

WORDPLAY! turned Pittsburgh’s bus shelters into early literacy spaces through colorful posters filled with words, images, and conversation prompts. Installed near childcare centers and underserved neighborhoods, the project encouraged families to play with language during everyday moments of waiting.

How did they do it?

- **Building creative partnerships.** WORDPLAY! partnered with students at the Art Institute of Pittsburgh to create engaging poster designs while giving students professional portfolio experience.
- **Strategic placement.** In collaboration with Lamar Advertising, the team installed posters in bus shelters located along routes where kids and families gathered.
- **Connecting learning environments.** Themes aligned with Pittsburgh Public Schools’ curriculum, while smaller posters extended activities into classrooms and childcare centers.
- **Encouraging experimentation.** Support from Fred Rogers Productions created space to test new ideas, adapt quickly, and refine the concept through trial and error.

What did they learn?

- **Simplicity nurtures participation.** Printed prompts proved more effective than technology-dependent activities because families could engage without barriers.
- **Good materials need good support.** Schools and childcare centers required dedicated outreach and implementation support to fully participate.
- **Design for real life.** Activities worked best when they fit naturally into the limited time, attention, and resources that families already had.
- **Look for ways to innovate.** Flexible funding and institutional trust gave the project freedom to experiment, adapt, and take creative risks.

How might you do it, too?

- **Consider overlooked moments.** Identify places where families naturally spend time—and consider how those spaces could support learning and connection.
- **Design for existing conditions.** Build experiences around the tools, time, and environments to which people already have access.
- **Partner with emerging talent.** Collaborating with students or early-career creatives can generate fresh ideas while affordably expanding capacity.
- **Make learning feel playful.** Activities that invite conversation, humor, and imagination can often be engaging than formal instruction.



Learn more at
<https://bit.ly/4uwkdih>



YMCA Lighthouse Project

What began as an audio engineering program in a local high school became a multifaceted creative community.

“Give youth an opportunity to teach you something. It gives them the opportunity to grow as a person.”

— Trey McCune, Executive Director, Homewood-Brushton YMCA



Photo: YMCA of Greater Pittsburgh



What is it?

The YMCA Lighthouse Project is a youth arts and media program serving young people through music, visual arts, storytelling, and creative expression. Based in the Homewood-Brushton YMCA, the program blends creativity, mentorship, and belonging in a community where young people find connection and voice.

How did they do it?

- **Hiring working artists.** Students learned from working musicians, designers, and creators actively engaged in their professional fields.
- **Capitalizing on investment.** Support from the Heinz Endowments allowed Lighthouse to outfit a professional-grade recording studio that is free for students and rentable to the community.
- **Expanding access.** Collaborations with social service organizations and community groups helped Lighthouse connect with and serve foster youth, senior citizens, and families.

What did they learn?

- **Relationships are everything.** Participants consistently described Lighthouse as a “found family,” highlighting the importance of compassion, community, and trust.
- **Communication is the connection.** Public speaking, storytelling, writing, and creative expression strengthened learning across all artistic pathways.
- **Young people become leaders.** Many participants carried their experiences into community work, mentorship, and education roles beyond the program.

How might you do it, too?

- **Listen first.** Asking thoughtful questions creates stronger relationships and encourages young people to take intellectual risks.
- **Build teams around shared values.** Hire people who practice their craft and care deeply about mentorship and community.
- **Seek long-term support.** Multi-year funding creates space for experimentation, growth, and sustainable relationship building.
- **Reimagine existing spaces.** Underused facilities and flexible partnerships can become powerful sites for creative learning and connection.



Learning Keywords



Learn more at
<https://bit.ly/4vCpDch>



Youth Arts Alley

Situated within a newly established arts and cultural district in the city of Butler, Youth Arts Alley symbolizes the renewal that school-community partnerships make possible.

“Youth Arts Alley is a symbolic culmination of a whole lot of other things that are happening in our community.”

— Brian White, Superintendent, Butler Area School District



Photo: Butler Area School District



What is it?

Youth Arts Alley is a place to showcase student work and activate student engagement in Butler, Pennsylvania. As the central community of a school district serving 6,000 students across 150 square miles, Butler’s main street is now a living learning laboratory where education is embedded in community.

How did they do it?

- **Creating community buy-in.** A Rotary group initiated the effort, aligning with the school district’s “portrait of a graduate” and bringing together city, school, and community leaders around a shared vision.
- **Human-centered design.** The district engaged students and residents in shaping the work, ensuring the project reflected the needs, goals, and experiences of the Butler community.
- **Cultivating context.** Mindful of Butler’s history, the initiative represents a shared commitment between students and the city, linking educational opportunity with community revitalization.

What did they learn?

- **Knock down the walls.** The most powerful educational innovations may not happen solely within a school, but rather at the intersection of schools and community life.
- **Symbolism matters.** Sometimes the value isn’t just in the immediate impact, but also in what a project represents: the possibility of collaboration, transformation, and hope.
- **Involvement yields ownership.** By involving students in every stage of this real-world design challenge, young people found a voice and an outlet for their values.

How might you do it, too?

- **Assemble the puzzle.** Consider how isolated projects might connect. Youth Arts Alley connects with a repurposed baseball stadium, a local farmer’s market, school greenhouses, and an aquaponics facility. Each piece strengthens the others.
- **Let community partners lead.** Sometimes the best learning innovations come from outside the walls of a school building. Be open to other groups and the possibilities they imagine.
- **Leverage what you have.** Butler built on existing historical and artistic attributes. Look at your community’s underutilized facilities and assets. What sits empty part of the year? How might these unused spaces be activated?



Learn more at
<https://bit.ly/4v7DrMe>



Youth Programs and Tool Lending at the Millvale Community Library

A library that lends ladders—not just books—is rethinking what a community hub can be.

“You have to figure out a way for things to work, even if you don’t have the money or resources. You can’t say, ‘Wait two years until we have the money to do it.’”

— Melissa Mason, Executive Director, Millvale Community Library



Photo: Millvale Community Library

What is it?

Millvale Community Library expands traditional library services. It offers a tool-lending library with more than 1,000 items and a multimedia teen center with hands-on maker technologies, providing flexible access to practical resources and creative learning.

How did they do it?

- **Starting with grassroots energy.** The tool library began as a volunteer-led effort that gradually evolved into a formal system that preserved community ownership.
- **Continuously assessing needs.** Staff regularly gathered input from residents and adapted services—from hours to programming—to reflect the community’s needs.
- **Prioritizing youth engagement.** The library developed targeted approaches for different age groups, with a strong focus on engaging tweens through creative, accessible programming.
- **Securing aligned funding.** Leveraging regional grant opportunities supported staffing, operations, and expansion while reinforcing the library’s community-centered mission.

What did they learn?

- **Flexibility drives access.** Adapting staffing, schedules, and formats allows programs to remain available even when resources are limited. The goal is to balance drop-in accessibility with scheduled opportunities.
- **Relationships matter most.** A consistent, caring adult presence has a greater impact on youth than any specific activity or tool.
- **Structure supports growth.** Dedicated coordination efforts improve program quality while sustaining volunteer energy.

How might you do it, too?

- **Start by listening.** Ask community members what they need and build programs in direct response.
- **Align funding with purpose.** Use available funding streams creatively to support multiple community priorities.
- **Build on existing strengths.** Identify what already works locally and use it as a foundation for new initiatives.



Learn more at
<https://bit.ly/3Sk7xxr>



