
MOON

A GUIDE TO BOLD & EXPERIMENTAL THINKING IN EDUCATION

SHOT

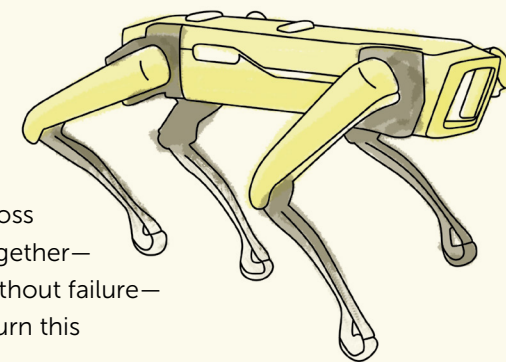


Chapter 1

Mission Orientation

Once upon a time, most people considered travel to the moon nothing but a dream. A bold idea so improbable, it seemed impossible.

We know now that it wasn't impossible. And many scientists, engineers, mathematicians, pilots, and politicians knew it at the time. Thousands of people from across different disciplines worked together—tirelessly, fearlessly, and not without failure—for many years, to eventually turn this distant dream into reality.





A few moons later, in 2007, a group of educators gathered in Pittsburgh, Pennsylvania to tackle their own bold but challenging idea: how might we rethink where, how, and why learning happens?

The world had changed a lot since we landed on the moon. Technological advances like personal computers, the internet, smartphones, and a new-fangled concept called “social media” were changing how people lived, worked, and interacted at an increasingly rapid rate.

Educators saw changes in their students, too: they were using technology more frequently, connecting with their peers differently, and preparing for careers that didn’t even exist a few years prior.

The way young people were learning was changing, and education needed to change, too.



Over the last 15 years, that small group of educators evolved into the Remake Learning network, now made up of over 600 organizations stretching across the southwestern region of Pennsylvania and the northern portion of West Virginia. We help connect all the people, projects, and organizations that have a role in transforming education: classroom teachers, learning scientists, artists, designers, early learning educators, administrators, principals, mentors, facilitators, researchers, librarians, museum educators, program directors, edtech entrepreneurs, philanthropists, and more. We make it easier for them to share best practices, collaborate on new ideas, and find professional learning and funding.

Remake Learning’s mission is a new kind of moonshot: make learning engaging, relevant, and equitable for today’s young people.

The Moonshot Grant Opportunity

One of the key strategies we use to fuel our mission is “catalytic” grantmaking: awarding funds that encourage people to take risks, try new things, and explore the limits of what’s possible.



The funds we award are different from traditional grants because they’re fast, fluid, and flexible. They offer crucial right-place, right-time funding that can take an exciting idea—sparked by a network conversation or connection—and elevate it to a real-world pilot or prototype. Without funding like this, many ideas may never take flight.

In this spirit, Remake Learning launched Moonshot Grants in 2021. They marked our biggest, boldest grant opportunity to date.

The opportunity drew on tried-and-true network values while pushing the envelope further. **The goal of Moonshot Grants was to support truly future-forward ideas that had the potential to drive long-term, systemic change in education.**

At the same time, the opportunity was heavily influenced by current social and educational challenges, including the COVID-19 pandemic and ongoing struggles for racial and social justice happening across our region and the world.

At its heart, the Moonshot Grants program is about the future: what can we do today to transform tomorrow’s education system? How can we ensure the future of learning is engaging and relevant for every young person, regardless of their race, gender, locale, or family income?

Moonshot Grants awarded funding of up to \$70,000. Together, Moonshot grantees would form a cohort, working and learning together to further refine their funded projects and ideas.

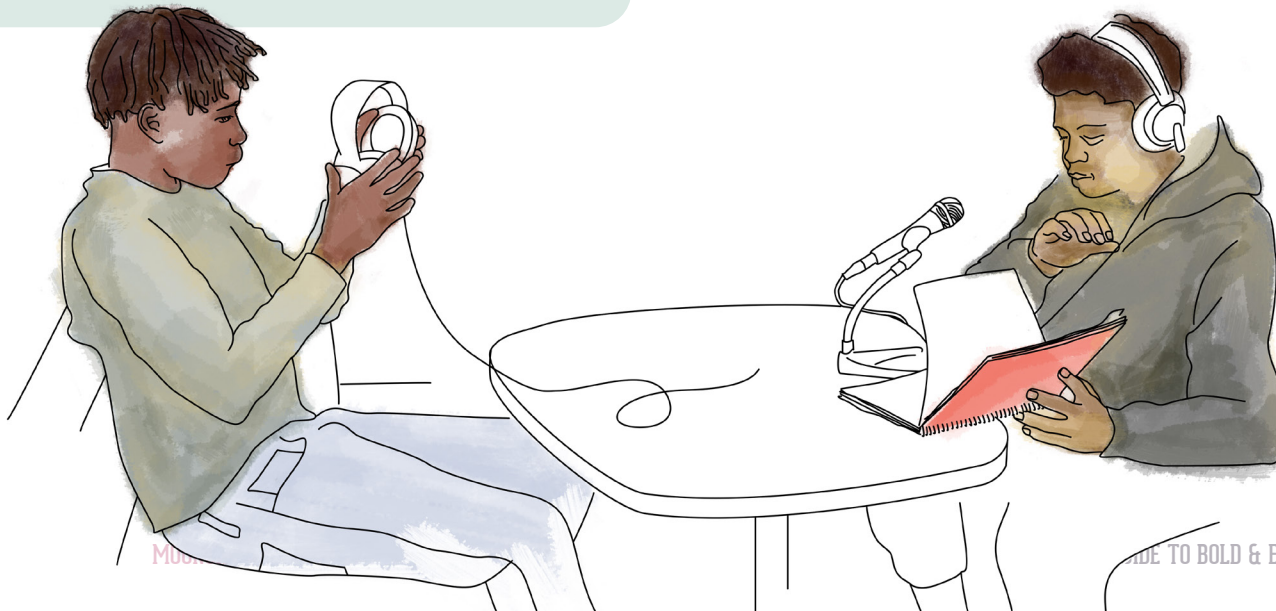
The Application Process

We issued a call for applications, looking for any organization, school, team, or partnership that was ready to diverge from the norm, experiment in their learning space, embrace the possibility of failure, and shake up “the way we do things.”

The application asked potential grantees to brainstorm their **preferred future of learning**, or what education might look like 10 to 20 years in the future, and build their project idea to fit. Their project would be designed to catalyze movement in that direction.

Definition

Preferred Future of Learning:
what you hope learning will look like 10 to 20 years in the future



Successful Moonshots projects:

- **Prioritize bold experimentation** by testing a new or emerging idea in education (as opposed to building on a current effort)
- **Incorporate collaboration** in the form of either external (outside organizations) or internal (students, parents, caregivers, staff, community members) partners
- **Center equity and justice** by explicitly supporting learners of color, learners in poverty, learners in rural areas, girls in STEM, and/or learners with disabilities
- **Uphold modern learning values** like creativity, problem-solving, cross-cultural understanding, or others
- **Incorporate modern learning practices** like hands-on, human-centered, and inquiry-based learning

We also asked applicants to connect their preferred future of learning to related **signals of change**: other projects or work happening now that might reflect early examples of their preferred future of learning.

Definition

Signals of Change:
elements or early indications of your preferred future already taking place

This was a tall order and a decidedly different take on grantmaking. So to help guide applicants through the process, we hosted a required informational workshop and optional open office hours.

Over the first two years of Moonshot Grants, we received nearly 250 applications and awarded grants to 33 projects, totaling over \$2.5 million in funding.

Art & Activism Academy

1Hood Media 1hood.org

Youth-determined programming that spans years (rather than a few isolated sessions) and supports arts learning and social justice.

Space Is the Place: Transforming Perry High School Through Space Career Exploration

A+ Schools projectplusus.org

An “accelerate, don’t remediate” curriculum co-designed with students, teachers, and industry partners.

Ramp Up Fellowship

Assemble assemblepgh.org

An educator training model that can support both youth and community development.

The Learning Village Model

Oasis Farm & Fishery
oasisfarmandfishery.org

Challenging traditional top-down, teacher-led learning by implementing a new multidirectional, multigenerational, and community-based learning model.

See in-depth case studies of the highlighted projects in Chapter 3

Growing a Green Future

Butler Area School District
basdk12.org

Integrated agricultural and entrepreneurial learning that fosters community engagement and connection between students, staff, and families.

Systemic Integration of Behavioral Health

Clairton City School District
ccsdbears.org

An on-site, multifaceted social-emotional learning program to benefit both youth and adults.

Personalized Pathfinding

California Area School District
calsd.org

Developing an individualized educational program for every student in the school district.

Mapping Professional Learning Pathways for Educational Transformation

Cornell School District
cornellsd.org

Year-long educator learning, which replaces one-off professional development days.

BioDome Experimental Libraries

The Citizen Science Lab
thecitizensciencelab.org

Ready-to-use STEM learning opportunities embedded within communities.

Mak(er)ing Math Fabulous

Duquesne University duq.edu

Connecting math concepts to real-world making projects to change perceptions about who, how, and why we learn math.

Ignite Special Education Pathway

Baldwin-Whitehall School District bwschools.net

Using college-in-high-school curriculum to boost teacher recruitment and transform the special education field.

Razing the Walls for Experiential, Life-Wide Learners

Environmental Charter School ecspgh.org

A school-wide approach to learning that is radically student-centered and community-based.



AbilityLab

Children's Museum of Pittsburgh pittsburghkids.org

Maker education programming designed to increase accessibility for learners with disabilities.

Partnerships for Change

Northgate School District northgatesd.net

Mental health interventions that leverage technology, games, and horticulture to serve as an engaging force for good.



MOONSHOT

Learning Has a New Lead

The Woodlands Foundation mywoodlands.org

Challenging traditional ideas about the educator-student dynamic by having individuals with disabilities lead teacher trainings.

Maximizing Student Agency

California Area School District calsd.org

Creating more opportunities for personalized learning by reimagining the school calendar, school discipline, and school lunches.

STEM Ambassadors Bridging Great Futures

Boys & Girls Clubs of Western Pennsylvania bgcwpa.org

Training and employing teen educators as STEM experts at summer programs and out-of-school organizations.

Play Studio + Professional Learning Laboratory

Hatch hatchpgh.com

Scaling the possibilities of play-based learning through a play studio and in-school hub for educator professional development

Fearless Learning for Math

Wheeling Country Day School
wcdsedu.com

A first-of-its-kind math curriculum to meet the needs of individual students with a focus on those with dyscalculia.

Fly Like a Girl

Baldwin-Whitehall
School District bwschools.net

A drone-flight learning ecosystem led by girls from school districts across the Pittsburgh region.

Art & Digital Fabrication Residency

Intermediate Unit 1 iu1.org

A residency program that pairs working artists with digital fabrication teachers to create hands-on learning experiences for students.

Youth-Led Adult Ally Training

World Affairs Council
worldpittsburgh.org

Continuing education workshops for educators that are designed and led by young people.

City Bridges

City Theatre Company
citytheatrecompany.org

Expanding career pipelines that connect high school theater arts students to high-tech careers.

Teachers Ascend into West Virginia

West Virginia Public Education
Collaborative wvpec.wvu.edu

An exploration of new ideas for recruiting and training teachers in Appalachia by prioritizing the needs of aspiring educators.

Taking Off

South Allegheny School District
southallegheny.org

An open aviation careers curriculum for high school students to help diversify commercial aviation.

Ramp Up Pathways

Assemble assemblepgh.org

Training and accreditation to equip and empower young BIPOC and LGBTQIA out-of-school educators.

Reimagining Teacher Time

Duquesne City School District
dukecitysd.org

A partnership model that connects school districts with out-of-school-time educators to bring the community into schools and create time for the personalization of learning.



Partners in Play

Hatch hatchpgh.com

Play pedagogy that centers the joy of learners and educators and is based in a replicable, play-based curriculum for kindergarten and first grade classrooms.

The Village Learning Hub

Homewood Children's Village
hcvpgh.org

An out-of-the-box homeschool model built to provide more equitable access to learning.

Demo Tapes

SLB Radio Productions
slbradio.org

Using media-making time, space, and projects as a tool for in-school evaluation and assessment.

Science Adventure School

West Virginia University
wvu.edu

Transformational outdoor learning experiences that are available to youth living in low-income, rural areas.

Teaching to the Edges

Wheeling Country Day School
wcdsdu.com

Building learning pathways for every student with in-school virtual tutoring and practices that are typically reserved for special education and gifted learning

Family Literacy Satellite Libraries

Wilkinsburg Public Library
wilkinsburglibrary.org

Making books and literacy learning available to more people, in more places, across a community.

The chapters ahead will introduce you to some Moonshot grantees and the bold, experimental ideas they're using to shape the future of learning. You'll learn more about the conditions that helped them succeed, the failures they learned from, and the initial impact they're seeing in their learners and communities.

But first, we want to introduce you to the type of thinking that underpins each and every Moonshot project: We call it the **Moonshot Mindset**. It's what helps us and our grantees embrace the bold thinking and experimentation that can spark systems-level solutions.



Chapter 2

Prepare for Takeoff

Developing a Moonshot Mindset

The pandemic opened educators' eyes to new ways of doing things. It forced us to rethink how we deliver content, ensure access, and connect with students. Overnight, people recognized new possibilities. Educators' dedication to their students overcame a seemingly impossible situation and found new and novel ways of teaching and learning. It wasn't perfect. It wasn't easy. But it broke the mold, and changed the world, and in some cases, we found that the new ways were much better than the old ones. This is the Moonshot Mindset: a way of thinking that adapts to the rapidly changing present, setting aside the past in order to experiment our way into the future.

The Moonshot Mindset embraces experimentation, risk, and change as necessary building blocks in creating a dynamic and equitable future of learning. It's what helped our Moonshot grantees design successful projects, and it can help you, your colleagues, and your school or organization think differently about the current challenges and future realities facing your learners.



The Moonshot Mindset is a type of critical and creative thinking that kickstarts systems-level change in education. It helps us consider today's issues in teaching and learning from the vantage point of the future. Specifically, a future in which we've successfully shifted educational norms so that learning is strikingly relevant and powerfully accessible to every learner, regardless of their race, locale, or family income.

Definition

Moonshot Mindset: a perspective that helps us consider today's issues in teaching and learning from the vantage point of the future

A Moonshot Mindset pushes us to answer questions like:

- How has education changed, and how must it continue to change?
- What type of future do we want for young people?
- What do we need in order to move us from where we are to where we want to be?

The goal of the Moonshot Mindset is to develop a bold, experimental idea or project that has the potential to catalyze change and propel us toward a preferred future of learning.

Just like our funded Moonshot projects, these ideas are:



Bold

They're novel, nontraditional, unconventional, or previously thought impossible



Experimental

They have a level of risk associated with them and provide an opportunity to test an idea and learn from it



Just

They're helping learners, families, or communities flourish by renegotiating power imbalances, dismantling barriers, promoting anti-racist practices, and/or affording more support and opportunity to learners of greatest need

It's time to think radically about the future of learning. Let's get started.

This guide is all about getting you into the Moonshot Mindset. So grab a pen, gather some colleagues, and get ready to develop your own Moonshot idea. In the next few pages, you'll work through the following four steps:

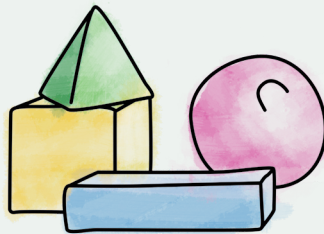
Step 1:

Define your strengths



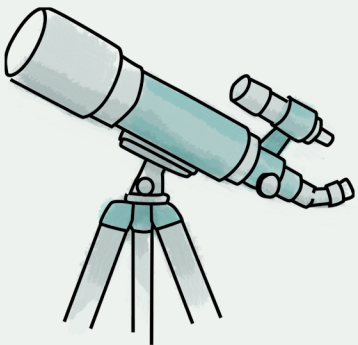
Step 2:

Visualize your preferred future of learning



Step 3:

Describe the attributes



Step 4:

Connect present to future



Step 1: Define your strengths.

This is our warm-up to developing deeper ideas about the future. It's important to understand what you, your team, your community, and your school or organization do well now and what challenges you face.

Get Creative

Draw something (anything!) that represents the strengths of your school or organization. What makes you strong in these areas?

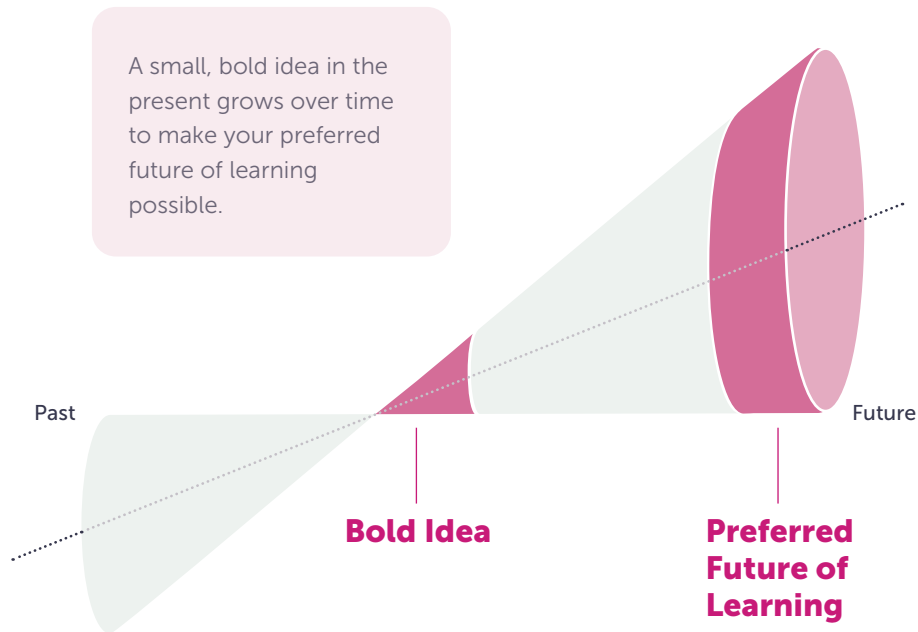
Step 2: Visualize your preferred future of learning.

There isn't one definite future of learning. You can define your own—one that exists in a universe of possibilities but is unique to the needs of your community and learners.

The process of "futuring" can help you do this. In the 2020 publication *Radical Thinking for Equitable Futures*, the design firm IDEO describes futuring as a process that "allows us to imagine possible outcomes with the hope of exploring, better sensing, and equipping ourselves for the potential realities ahead of us."

Futuring can help you better understand what's coming and make choices that support your preferred future of learning.

The next two prompts will lead you through futuring exercises.



Futuring Technology & Education

Consider what technology looked like 10–20 years ago. Think about how much has changed! What was once cutting-edge quickly became a pit-stop on the road to today's tech: MapQuest to Google Maps, thumb drives to cloud computing, iPod downloads to unlimited streaming. How do you think technology will continue to change in the next 10–20 years? In the space below, write what you envision when you think of technology and its applications to learning 10–20 years ago, today, and 10–20 years in the future.

| | 10–20 Years Ago | Today | In 10–20 Years |
|---|--|-------|----------------|
| Personal Computers & Devices | Home computers, early laptops, flip phones | | |
| Videos | LaserDiscs, VHS tapes, DVDs | | |
| Classroom Design | Chalkboards, whiteboards, SMART boards, fixed seating with teacher at the front of classroom | | |
| Instructional Content | Physical textbooks that may be years or decades old, fixed chapters moving in linear order | | |

Futuring The Look & Feel of Learning

Close your eyes and picture yourself 10–20 years in the future. Other than technology, start to picture what learning looks like. Where is it happening? Who's involved? What does it prioritize? What does it offer to students? Open your eyes and write or draw what you saw.

Step 3: Describe the attributes.

Here your preferred future of learning is starting to take shape. Attributes are how we detail our future of learning. They reflect what's provided or prioritized and they demonstrate the role of equity, justice, and collaboration.

Definition

Attributes: key features of your preferred future of learning

Defining specific attributes of your preferred future of learning will help you develop a bold and concrete idea that spurs action in that direction.

Here are some examples of attributes:

Tech immersive: Every learner has access to tools and mentors to help build critical thinking and creativity through technology.

Learner-centered: Education honors and celebrates the humanity, individuality, and creativity of every child.

Collaborative: Learning engages entire communities across generations and specialities to solve problems.

Grounded in community: Educators and learners collaborate with community members in meaningful ways.

More on the next page

Culturally sustaining:

Curriculum is authentic and champions the contributions of all members of society.

Imaginative and iterative:

Learners and educators are free to play and experiment. They fail and retry often.

Joyful: The education system fosters joy in both teaching and learning.

Rooted in equity:

More supports and opportunities are afforded to those of greatest need. Education systems uplift and support the voices, strength, and potential of learners in poverty, learners of color, learners in rural areas, girls in STEM, and learners with disabilities.

Personalized: Individual learning styles are considered in instruction and evaluation.



MOONSHOT

Attributes also help you compare your present reality to your preferred future. When you see aspects of this preferred future already happening in the world around you, these early indicators can serve as inspiration and encouragement on your journey. Such early examples are called signals of change, and you can look for them in different places, sectors, and industries.

Let's put pen to paper and spell out your future attributes and signals of change.

Attributes & Signals of Change

My preferred future of learning has these attributes:

Examples or early indicators of such change (consider looking outside of education):

1.

2.

3.

4.

5.

Step 4: Connect present to future.

Now you'll take a look back at where steps 1–3 have led you and where they might take you next. This final step is about unearthing a bold idea that connects the present to your preferred future.

The Through Line

Describe how your preferred future of learning is different from teaching and learning today.

What one action, idea, or initiative could build on your signals of change, mitigate differences from today, and draw on equity and justice to make your attributes a reality? It could be a project, strategy, policy, or methodology—or something else!

If you need to keep writing...

Congratulations!

You've just developed a big, bold idea for the future of learning using the Moonshot Mindset!

Keep reading to learn how to transform that idea into a course of action.



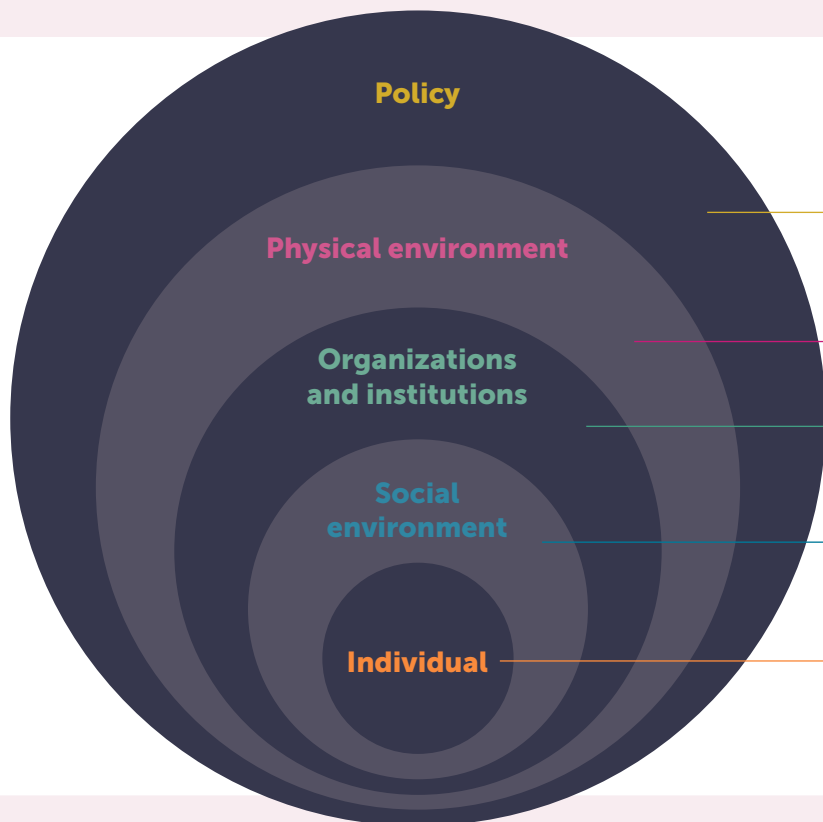
Mission Reports

Learning from Previous Moonshot Grantees

Each Moonshot Grant project is an example of the Moonshot Mindset in action. Prior to receiving their award, project leaders completed a process similar to the one outlined in Chapter 2. This helped them develop their own bold idea about the future of learning, which eventually became their funded project.

The actions involved in a Moonshot project can be large or small. Actions that fail to cause changes can be just as important as those that succeed—these failures are a necessary part of implementing and iterating our ideas. Failures show us how and where we must change to get closer to desired outcomes and our preferred future of learning.





Models of whole system change

used in fields like public health to depict the shifts that happen at different levels

International and national guidance and laws, local laws and policies, rules, regulations, codes

Built, natural, transportation

Schools, businesses, faith organizations, non-profits, clubs

Individual relationships, families, support groups, social networks

Individual capabilities, motivations, opportunities, knowledge, needs, behaviors

These actions are about transforming future vision into present reality to instigate shifts in the system. The Moonshot Mindset encourages project leaders to note shifts at different levels within their system, from shifts within individual people all the way up to those in the policies and the built environments around them.

Actions help build momentum and catalyze systemic shifts in the direction of our preferred futures.

To better understand the relationship between the actions and shifts involved in making Moonshots, this chapter takes a deeper look at how four Moonshot projects took flight.

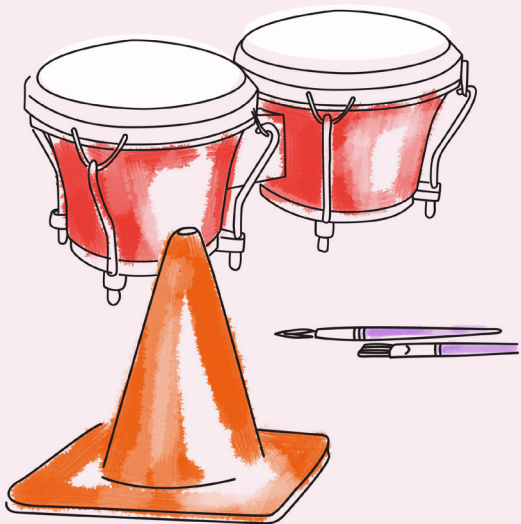


Mission Report:

Partners in Play

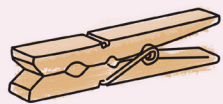
Preferred Future of Learning

In Hatch's preferred future, play is the right of every child in every school. Learning is community-based and joyful. Classrooms celebrate humanity, individuality, and creativity. Prioritizing play promotes the sharing of power.



The Moonshot:

Develop a replicable play framework for kindergarten and first grade that centers the joy of learners and educators.



MOONSHOT

Hatch Partners in Play (hatchpgh.com) is an equity-focused initiative designed to support educators in prioritizing play in public school classrooms. Initially co-created with Pittsburgh Faison educators, the work has also expanded to Pittsburgh Arsenal. Every school day, every child in the program experiences a Playlab: an intentional, extended period of child-led free play outside of recess, specials, or academic blocks.

Playlabs are opportunities for children to find flow, build community, and imagine boldly. During play sessions, students have free access to a range of materials—things like clay, wooden blocks, magnetic tiles, paints and more—which they are encouraged to combine in new and creative ways. After students have played for the majority of an hour, they are given time to journal about their creative experiences by drawing pictures or writing about their play.

Partners in Play is what kindergarten and first grade look like when educators practice the belief that play = learning.

In the Play Studio, children explore a variety of open-ended art and play materials.



A GUIDE TO BOLD & EXPERIMENTAL THINKING IN EDUCATION

Attributes of Learning in This Future

Imaginative and iterative:

Learners and educators are free to play and experiment. They fail and retry often.

Learner-centered:

Education honors and celebrates the humanity, individuality, and creativity of every child.

Flexible: Students and educators have choices in when, where, and what they learn.

Joyful: The education system fosters joy in both teaching and learning.

Grounded in community:

Educators and learners collaborate with community members in meaningful ways.

Signals of Change from the Universe

The Reggio Emilia approach to early learning, including a strong stance on the rights of children, on beauty and child-centered environments, emergent curriculum, and meaningful documentation and reflection practices.

AnjiPlay, an educator-created philosophy that emphasizes love, joy, risk-taking, engagement, and reflection.



Shifts Observed by the Flight Crew

Physical environment: There will soon be a dedicated Play Studio classroom in the school building.

Physical environment: There has been a visible transformation in the way the school environment looks: stories and photos of the children playing are displayed around school hallways.

Organizations and institutions: The principles and practices of the project are now being used in four different schools in the district.

Social environment: Students and teachers are forming strong creative communities. They're finding safe spaces for expression and joy.

Organizations and institutions: The school principal is committed to expanding the program to as many children in the school as possible and sharing the pedagogy throughout the region.



Social environment: School administrators and classroom teachers are making significant mindset shifts around the power and importance of play in teaching and learning.

Social environment: Teachers are finding new (and much-needed) joy in their own work, which is beginning to spread throughout their school buildings and beyond.

Individual: Students are growing socially, emotionally, and academically. They're developing their ability to persist through challenges and finding joy in classroom experiences.

Advice from the Flight Crew

Cultivate a collaborative mindset from the start. A strong cohort is equipped to challenge the societal and educational beliefs that prevent imaginative and humanizing experiences from taking root in schools that serve marginalized communities. Give everyone opportunities to “see and believe.” Relationships and respect will help people be open to change.

Find the right partners. Hatch’s teacher partners were open to experimenting and learning together, and became the program’s greatest advocates.

Let your process drive your work. Listen, reflect, and pivot. Some opportunities can be planned for, others are going to come up unexpectedly.

Pair contrasting strengths: this project was led by experienced out-of-school educators. Their knowledge of and experience with play-based inquiry brought what is traditionally thought of as an out-of-school-time mindset directly into the classroom.

Make data collection a central thread of your project. Document the academic and social-emotional benefits of your project in real-time so that you have evidence at-the-ready when you’re ready to grow.



Key Contacts

Dahlia Rao

Program Director
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Shannon Merenstein

Executive Director
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Play Studio is a direct response to and celebration of the ideas and inquiries of the children who play in it.

Mission Report:

Personalized Pathfinding

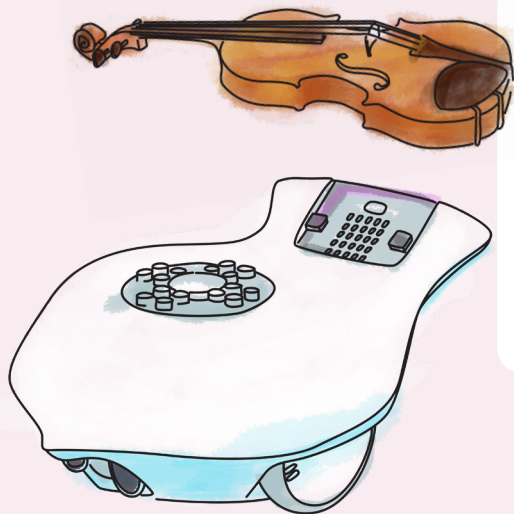
Preferred Future of Learning

In California Area School District's preferred future, schools value learning differences. Students have flexibility in the path, pace, and place of their learning.



The Moonshot:

Develop an individualized educational program for every student in the district.



Several students in the pilot group chose to pursue their interests by conducting science experiments.



California Area School District (calsd.org) is a small public school district serving rural and post-industrial communities in southwestern Pennsylvania. Like most American schools, the district develops Individualized Education Plans (IEPs) for students with disabilities.

Starting with a pilot group of students, the district is moving towards universal use of individualized educational programs—rather than reserving them for students with disabilities or exceptionalities—to engage learners in their ideal curriculum. To meet this ambitious goal, the district added new roles: learning coaches who serve as hands-on mentors for the students. The coaches draw on Montessori practices and global instructional sources to set personalized goals for each student. Then each day, the coaches work with students to thread the students' individualized learning in with the work they're doing in conventional classes. This looks different for every student: some are keeping bees and programming robots, others are raising chickens and 3D printing violins.

Personalized Pathfinding is personalized learning in action, an approach that gives each and every student the flexibility, variety, and agency to reach their potential.

Attributes of Learning in This Future

Individualized: Schools offer diverse instructional experiences and define success for each student.

Learner-centered: Schools and organizations emphasize whole-person development.

Flexible: Learners have choices in how, when, and where they learn.

Competency-based: Schools and society recognize that all students can excel.

Culturally sustaining: Curriculum is authentic and champions the contributions of all members of society.

Signals of Change from the Universe

Sanjay Sarma's book *Grasp*, which highlights MIT's abolishment of grades for first semester freshmen.

Colleges dropping SAT and ACT requirements and instead considering more diverse measures of student potential.

The former Foundry Makerspace in Baltimore, which helped learners develop their creativity and problem-solving through fabrication and building.



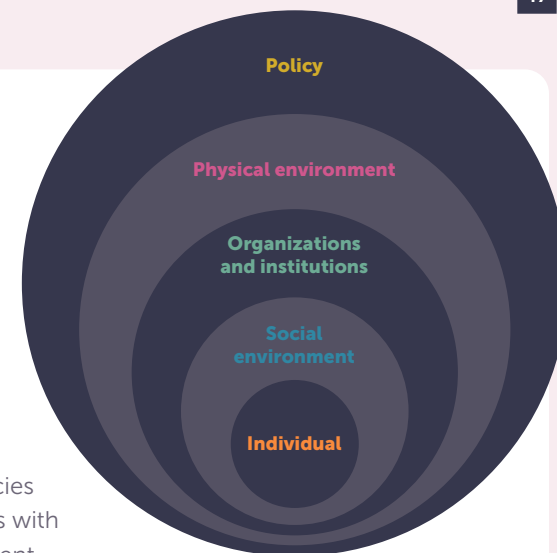
Shifts Observed by the Flight Crew

Policy: The school board is working on compliance policies to align expanded use of IEPs with GPA, grade levels, advancement, and honor societies.

Physical environment: Learning opportunities are taking place beyond the classroom walls, in such places as beehives and chicken coops, tying student interests with the state standards.

Organizations and institutions: Students are allowed to take a more diverse mix of classes, such as pairing a lower grade-level language arts and math classes with higher grade-level science and social studies classes, giving teachers and students more flexibility.

Individual: Students are becoming leaders among their peers, developing more confidence in themselves, and advocating for their learning.



Policy: Provision of IEPs is expanding beyond the initial pilot cohort to include dozens more students across grade levels.

Organizations and institutions: The school is collaborating with external partner organizations, such as the Pittsburgh Cultural Trust, to provide enrichment opportunities in response to student interests.

Social environment: Families are working together on projects, students are sharing their experiences, and the community is recognizing the district's efforts to support each student.

Individual: Teachers are seeing more "aha" moments among the Moonshot cohort students as they see the importance of their ideas and take pride in new discoveries.

Advice from the Flight Crew

Children can thrive as self-driven learners, and this doesn't require an enormous budget. But it does require a mindset shift, and that shift will likely come slowly, so be patient.

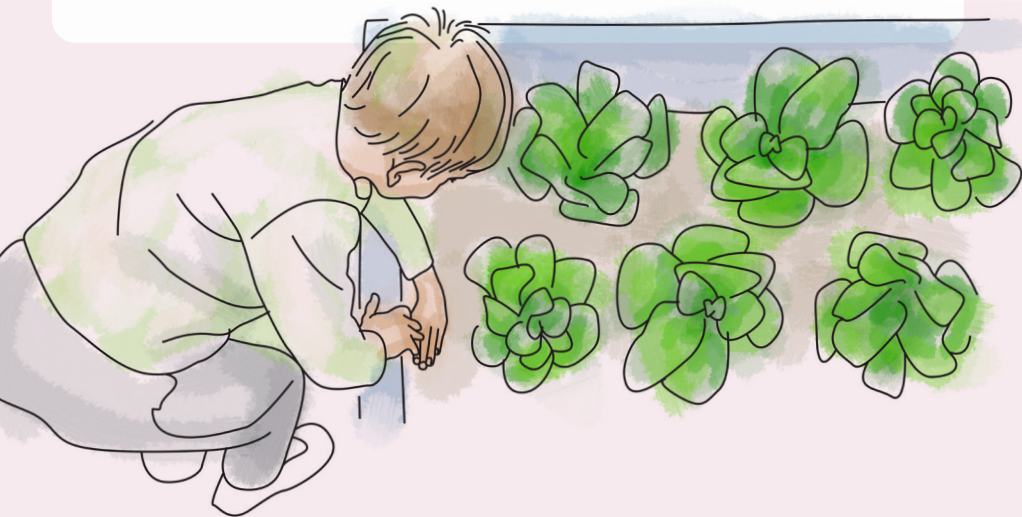
The built environment of most schools is designed for each teacher, by grade level, to work uniformly with an entire group of students. A move toward individual learning plans for all students will require a repurposing of learning spaces within a school building, and a new approach to using outdoor spaces.

By focusing on student voice and celebrating the individual interests, culture, and personal history of each student, you can promote equity and justice in your school community.

Key Contacts

Dr. Laura Jacob

Superintendent
jacobl@calsd.org



The district used existing technology (3D printers) to help students make and play violins without incurring new costs.

Mission Report:

The Learning Village Model



Preferred Future of Learning

In Oasis Farm & Fishery's preferred future, Black youth are equipped with the 21st century skills needed to push their communities forward. Young people learn alongside older generations to explore, innovate, and create.

The Moonshot:

Develop and implement a new multidirectional, multigenerational, community-based model that challenges traditional top-down, instructor-led learning.



Oasis Farm & Fishery (oasisfarmandfishery.org) is a Black-led, one-of-a-kind, urban bio-market garden located in Pittsburgh's Homewood neighborhood. By providing a robust "green" education to residents of all ages, and offering the physical space and opportunity to use that knowledge, Oasis aims to prepare students for meaningful careers and healthy lives in a community that fosters intergenerational learning among families of color.

The Learning Village Model is an experiential learning initiative focused on environmental and racial justice. The program criss-crosses in- and out-of-school-time spaces to provide a project-based, green education to learners of all ages. Shorter workshops offer one-time, hands-on learning experiences that are easy to plug into their busy schedule. Longer, multi-session modules allow for nuance and exploration, and give learners a deeper understanding of the environment and systemic issues around food.

The Learning Village Model is a future-oriented, historically grounded program that balances local and global priorities for economic and ecological vibrancy.

Students cultivated vegetables at an urban farm right in their neighborhood.



Attributes of Learning in This Future

Justice-centered and liberatory: Schools protect and cultivate the dignity of all people.

People-centered: Learning focuses on the holistic development of the student.

Free from barriers: Public ownership and equitable enjoyment of natural and technological resources.

Collaborative: Learning engages entire communities across generations and specialties to solve problems.

Place-based: Relationships with local indigenous communities are honored. Land and materials are treated with respect.

Signals of Change from the Universe

Culturally responsive practices are increasing in formal and informal learning spaces.

Program and university partnerships are connecting learners to research, expert teachers, and cutting-edge technology.

The Sankofa Village Community Project offers intergenerational learning around Black culinary and botanical knowledge.



Shifts Observed by the Flight Crew



Policy: Oasis is crafting policies to create a community farm that is more inclusive of people with disabilities.

Physical environment: The farm has been made more active and vibrant as more neighbors frequent the farm for learning, socializing, and gardening.

Social environment: Families reported improved access to information and resources that made positive impacts on their health, cooking and gardening skills, and pride in their culture.

Individual: Students demonstrate changes in attitude, knowledge, sense of self-efficacy, and interest in pursuing green careers.

Organizations and institutions: Outside organizations, across sectors, expressed a greater interest in the project's mission and desire to collaborate on programming.

Social environment: Community members felt engaged and invested in the future development of the community's learning resources, as a matter of neighborhood pride and aspiration.

Individual: Insights from the focus groups shifted the staff's assumptions about what it means to serve their stakeholders and design programs that are truly collaborative and empowering.



Students cook and eat together as they learn about urban agriculture and nutrition in the program's "Better Food, Better Me" class

Advice from the Flight Crew

Be as ambitious and imaginative as possible. Now is not the time to be realistic or reasonable. This is such a great opportunity to fail amazingly, or experiment wildly or do something that you've always wanted to do.

Engage in relational dynamics rather than transactional exchanges to cultivate the trust necessary to build effective and lasting partnerships.

Some learning goals are best achieved through a wide range of approaches. Rather than zeroing in on one approach—like classroom instruction or hands-on projects—use a diversity of approaches with a shared goal.

Even when you're offering beneficial learning opportunities, it may be necessary to also offer incentives (vouchers, stipends, or honoraria) to enhance participation.

Connecting with kids in classrooms is meaningful, but creating true "green leaders" of tomorrow requires working with them in kitchens and gardens.

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4

Mission
Report:

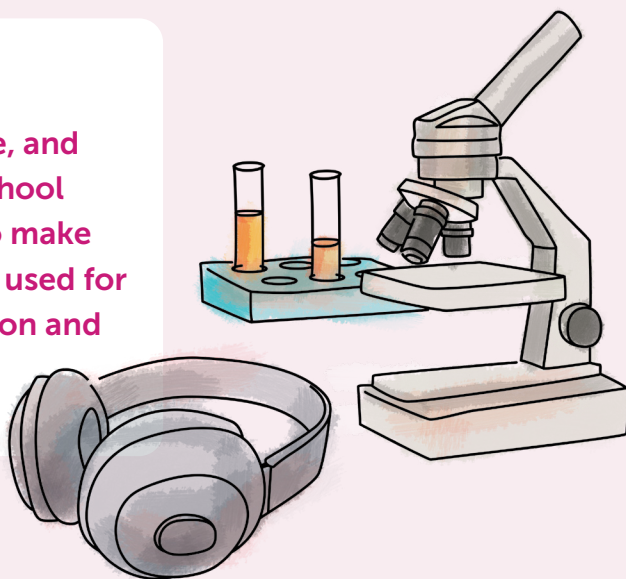
Demo Tapes

Preferred Future of Learning

In SLB Radio's preferred future, assessment is for learning. Learners use media-making to demonstrate learning and mastery in ways that engage their peers, their families, and their communities.

The Moonshot:

Create time, space, and curricula in the school day for learners to make media that can be used for in-school evaluation and assessment.



MOONSHOT

SLB Radio Productions (slbradio.org) is a public media studio that uses radio and audio to amplify the voices of youth—and members of other communities whose stories are often marginalized—to educate, empower, and build community. For decades, SLB has used professional multimedia tools to help small groups of students discover the power of telling their own stories.

In partnership with Manchester Academic Charter School Middle School (macsk8.org), SLB created a daily “use and share what you’re learning” period as part of the school’s schedule of classes. Initially, learners spent 80 minutes per day at SLB’s Youth Media Center working on projects like podcasts, talk shows, commentaries, and radio book reviews that related to the content and skills they were learning in the classroom. Over time, teachers often chose to incorporate media-making into classroom time. SLB engaged a third-party evaluator to ensure the process could be assessed, documented, and improved upon. A youth advisory panel also met regularly to provide feedback on the model.

This model is a viable alternative to standardized forms of assessment that are often inadequate and racially biased.

Students demonstrate their mastery of a unit on hydroponics by recording a talk show on the subject.



A GUIDE TO BOLD & EXPERIMENTAL THINKING IN EDUCATION

Attributes of Learning in This Future

Rooted in equity: Education systems acknowledge how learners of color are often harmed by biased policies and practices, and support new methods of assessing learning.

Personalized and competency-based: Individual learning styles are considered in instruction and evaluation.

Tech immersive: Every learner has access to tools and mentors to help build critical thinking and creativity through technology.

Authentic: Schools and learning spaces provide culturally relevant, real-world, and long-lasting learning experiences for learners and families.

Learner-centered: Educators recognize children and youth as individuals.

Signals of Change from the Universe

Changing demographics and increased population diversity expose more people to diverse voices and mindsets, which helps to combat xenophobia and racism.

Media-making is used more widely to sharpen the adaptability, creativity, and problem-solving skills of future workers.

Greater workforce demand for people who understand and value teamwork, interpret data responsibly, understand processes and planning, and express ideas clearly.

Shifts Observed by the Flight Crew

Policy: Teachers are able to use student recordings to assess comprehension and subject mastery, and to document the growth of student learning over an extended period of time.

Physical environment: Opened the Youth Media Center at SLB Radio, providing students, teachers, and program staff access to a space that is specifically designed for media creation.

Organizations and institutions: Trust has been built up between SLB and MACS. The initial school year demonstrated what is possible and showed how both organizations will benefit and thrive in collaboration.

Individual: Teachers have a deeper understanding of and inclination toward media-making projects and are enthusiastic for the continuation and expansion of the program.



Organizations and institutions: Administrators actively encourage teachers to look for potential moments of collaboration and help connect program staff and teachers.

Social environment: Program staff have a better understanding of the school culture, as well as the needs and expectations of both the teachers and the students.

Individual: Students show a great deal of enthusiasm for media creation, have improved their technical and communications skills, and view the program as a highlight of their school experience.

Advice from the Flight Crew

Flexibility pays off. Many of the small changes in plans and surprises that this project encountered were quite positive.

Begin with a broad approach and reassess the scope of work on a regular basis, narrowing the focus as needed as time goes on.

Be patient. It took a bit of time for students to become comfortable with the new experience of speaking about their work and creating media.

Media-making can be used to teach students to collaborate as a team, solve problems while thinking out loud, and express themselves clearly—all valuable 21st-century skills.

Programs like this don't have to be siloed as an "after school" project. Media-making can be woven smoothly into the fabric of the school day.



An 8th grader shares the methodology, hypothesis, and conclusions for a classroom project that evaluated bacterial growth to determine the dirtiest places on campus.



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Chapter 4

Chart Your Own Course

Resources for Moving from Insight to Action

Taking inspiration from past Moonshot grantees, it's time for you to draft a plan around your own big, bold idea for the future of learning.

Start at the End

Remember the future you're working towards, its attributes, and the early indicators you can look to for inspiration. What actions and shifts need to happen to make your big idea a reality?

Consider the conditions that can help your idea succeed: creating buy-in, cultivating open minds, cementing strong partnerships, documenting your work, sharing your story, and ensuring stakeholders have access to the necessary resources. What do you need to do to create these conditions for your idea?



Draft Your Plan

Just like there's no one preferred future of learning, there's no one way your idea can or should come to life. We hope the resources in this book, will help, but the plan you craft is ultimately up to you! You're free to incorporate new and different resources, ideas, and inspirations.

You can use the template below to start building your plan.

Prompt: Draft Your Plan

What's your big, bold idea for the future of learning?
(Reference the last prompt in Chapter 2 on pages 32–33)

What are your factors for success?
What conditions or environments do you need to create or sustain?

1.

2.

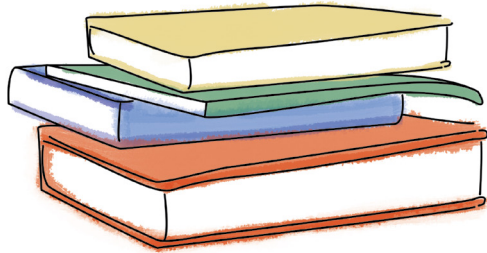
3.

4.

5.

What actions will you take to support these success factors? What actions will you take to build out your bold idea? What shifts will these actions support?

| | Action | Shift |
|----|--------|-------|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |



For Further Reading

These additional books and publications can help as you begin to build your plan:

Learning Reimagined: Radical Thinking for Equitable Futures, Imaginable Futures and IDEO
(imaginablefutures.com/learning-reimagined)

Remaking Tomorrow: Learning in a Post-Pandemic Future, Remake Learning (remakelearning.org/remakingtomorrow)

Remaking Tomorrow: What Comes Next?, Remake Learning (remakelearning.org/whatcomesnext)

Tomorrow Today: Letters from a Future in the Making, Remake Learning (remakelearning.org/lettersfromafuture)

An American Imperative: A New Vision of Public Schools, AASA, The School Superintendents Association
(remakelearning.org/americanimperative)

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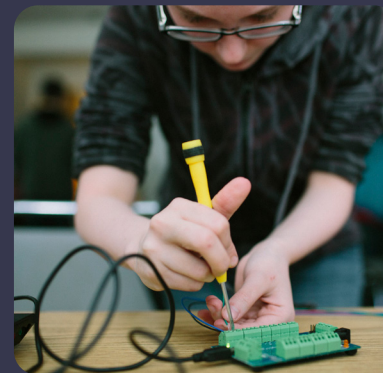
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