# Family Math Playbook

## A Guide for Schools and Organizations to Infuse Family Math Into Their Programming

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NAFSCE
NATIONAL ASSOCIATION FOR FAMILY, SCHOOL, AND COMMUNITY ENGAGEMENT

Center for Family Math

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# About the Family Math Playbook

Family math refers to the culturally relevant math concepts and interactions occurring in the everyday activities in which families engage with their children. Family math comes to life when families, schools, and organizations work together to support children's math learning through everyday moments and meaningful partnerships. On one side of the equation, families support math learning by talking about math in everyday life, holding high expectations for children's learning, and reaching out to educators and community partners for ideas and support. On the other side, educators and organizations expand family math by reaching out to families, learning from them, bringing those practices into curriculum and teaching, and reinforcing the routines, conversations, and confidence that already exist.

The Family Math Playbook is designed to help schools and organizations infuse family math into their ongoing programming and institutional structure. The goal of the Family Math Playbook is to build shared understanding, strengthen capacity, and guide strategic action so that family math becomes a sustainable and meaningful part of how organizations support children's learning and confidence in math. The Family Math Playbook supports reflection, planning, and implementation at every stage, empowering organizations to align family math efforts with their mission and core goals.

# Organization of the Family Math Playbook

The Family Math Playbook is structured around twelve interconnected domains that are grouped into four main stages of organizational growth.



**Reflect and Plan:** In this stage, organizations get up to speed on current family math research and practice, gather input on family math needs and priorities, and situate family math within their organizational mission and vision.



**Connect and Build Capacity:** In this second phase, organizations build the dual capacity of both staff and parents and communicate about family math to build awareness and shared understanding.



**Design, Implement, and Collaborate:** In the third phase, organizations begin to co-design family math programming, implement the programming, and activate family math partnerships.



**Lead, Learn, and Sustain:** In this final phase, organizations put in place processes to conduct formative and summative evaluations of their work, develop policies to support their family math practices, and engage in efforts to sustain the work.

| Reflect and Plan | Connect and Build Capacity | Design, Implement, and Collaborate | Lead, Learn, and Sustain |
|---|---|---|---|
| Get up to speed on current family math research and practice | Build staff and leadership capacity for family math | Co-design family math programming with parents and content experts | Conduct formative and summative evaluation |
| Gather input on family math needs and priorities | Build parent capacity and leadership potential for family math | Implement family math programming | Develop policies to support family math practices |
| Situate family math within organizational mission, vision, current programming, and funding | Communicate and raise awareness about the importance of family math | Activate family math partnerships | Sustain family math efforts through funding, continuous improvement, and expansion |

For each of these 12 domains, the Family Math Playbook includes:

- A **"What" and "Why"** section explaining the focus and importance of that stage.
- **"Ideas in Action"** drawn from real-world case studies to illustrate practical examples (see Appendix I for a complete list).
- A **self-assessment rubric** to help teams reflect on current strengths and areas for growth. Programs can rate themselves from 1 (not yet) through 5 (exemplary) on all of the key items.

| **RATING** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| | **Not yet** | **Emerging** | **Taking shape** | **Established** | **Exemplary** |
| **Description** | This area is not yet addressed or developed | Initial steps have been taken, but more work is needed | Some progress has been made | This area is well-developed and regularly practiced | This is a strong, sustainable, and embedded practice |

This structure makes the Family Math Playbook both aspirational and actionable by offering a roadmap for organizations at any stage of their family math journey.

Center for Family Math

# Who Is It For?

The Family Math Playbook is designed for a wide range of audiences who are committed to strengthening family engagement in math. The Family Math Playbook is for anyone with an interest in family math, regardless of their prior knowledge or experience. Individuals, family engagement teams, math programs, faculty, and entire organizations are all encouraged to use the Family Math Playbook. It may be especially useful for:

- Educators and other school practitioners who work directly with families and support family engagement or mathematics education
- Family engagement programs and coordinators
- Math programs and organizations supporting family-centered math
- Afterschool and library staff who guide families with tools and resources
- Parent leaders who advocate for accessible and engaging high quality mathematics instruction

# How To Use The Family Math Playbook

The Family Math Playbook is designed to help organizations incorporate family math into their existing programs and develop meaningful, family-centered math initiatives. It serves as a valuable resource that helps strengthen an organization's current efforts. The Family Math Playbook can be used in various ways. Depending on their needs, users may choose to work through the Family Math Playbook sequentially or may focus on specific sections that align with the areas in which they seek additional support. This allows organizations to engage with the content in ways that are most beneficial to them. The Family Math Playbook is designed to meet organizations where they are.

Users are encouraged to revisit the Family Math Playbook to reflect on their progress, reassess their goals, discuss any possible challenges, and continue building on new ways they can support family engagement in math. The Family Math Playbook can also be used in the following contexts:

- **Seminars and workshops with practitioners and families:** Explore different aspects of family math, including the "what" and "why." These sessions can be used to introduce new ideas and build communities where practitioners are working alongside families.

- **Learning communities and parent cafes:** Use case studies to reflect on practice. Cases support and encourage collaboration between family math practitioners and families.

- **Individual professional development, supervision and consultation:** Engage with readings that can help deepen understanding of key concepts.

# A Note on How the Family Math Playbook Was Developed

The Family Math Playbook was designed as a companion document to the Family Math Core Competencies. The Family Math Core Competencies describe the knowledge, skills, and dispositions that professionals need to partner effectively with families around children's math learning. They were developed through an iterative research and design process grounded in interviews with leaders working at the intersection of family engagement and mathematics.

As part of the development of the Family Math Core Competencies, the lead authors conducted 12 semi-structured interviews with representatives from a diverse array of organizations across the United States. Participants included representatives from a diverse range of organizations across the family engagement and mathematics fields such as schools, universities, community organizations, and research firms. Participants were asked open-ended questions about their work in family math, the strategies and conditions that supported their success, and the knowledge, skills, and attitudes professionals need to partner with families around children's math learning. They also reflected on how to build relationships with families and communities, honor families' cultural knowledge and lived experiences, and move from connection to purposeful collaboration. Interviews were coded with themes organized around the four domains of the Family Engagement Core Competencies: Reflect, Connect, Collaborate, and Lead.

The Family Math Playbook builds directly from this foundation. First, a graduate research assistant from the Erikson Institute, with the support of the Center for Family Math, conducted an in-depth literature review on organizational readiness frameworks and principles that support organizational growth. After this, a group of four graduate students from Dr. Karen Mapp's family and community engagement course at the Harvard Graduate School of Education (HGSE) re-examined the literature review and the original interviews to identify how math-focused organizations were integrating families into their work, and how family engagement organizations were beginning to focus more intentionally on math. Drawing on organizational psychology and program improvement research, the team developed a set of developmental stages and related indicators to help organizations assess and strengthen their family math practices.

The Center for Family Math team then adapted and expanded the graduate researchers' draft. This included reimagining the steps organizations can take to build stronger family math practices, developing a rationale for each step, and integrating case studies into each area. The Family Math Playbook was then shared with steering committee members and parent leaders, who contributed practical examples of what these stages look like in action.

The final document reflects this collective learning and is intended to help organizations move from initial interest in family math to deeper, more intentional, and more sustainable practice.

One final note. Throughout the Playbook, we use "parents," "families," and "caregivers" interchangeably to refer to the many people in children's lives who support their learning, growth, and development. This terminology is intended to be inclusive of the full range of adults who nurture children's mathematical growth.

# A Brief Introduction to Family Math

Family math refers to the ways families explore and talk about math through everyday experiences such as sorting laundry, measuring the perimeter of a room, calculating distance traveled, or comparing the price of groceries. These often playful and meaningful interactions and conversations build children and youth's comfort and confidence with math outside of formal school settings. Importantly, family math is not limited to basic counting or arithmetic. It includes foundational concepts like patterns, spatial reasoning, measurement, and problem-solving. Every family engages with math in daily life, though how they do so may vary based on culture, language, and caregivers' own experiences with math.[1] By recognizing and building on the math that families are already doing, educators and practitioners can help foster more frequent math moments at home and infuse family knowledge into their own learning spaces.

**Family Math Across the PreK–12 Continuum**

Although much of the momentum around family math has focused on the early childhood period, family engagement in math remains vital throughout a child's academic journey. In the early years, family math may include counting games, shape hunts, or playful routines. In later grades, it can evolve into real-world applications like budgeting, sports statistics, or collaborative problem-solving.[2] However, as students progress into middle and high school, families may face new challenges such as unfamiliar teaching methods or more abstract content that can make it harder to support homework or feel connected to math learning. Still, research consistently shows that families are committed to their children's success and serve as invaluable assets.[3] The key is to bridge generational differences in math understanding and offer accessible, relevant ways for families to stay engaged and reinforce math confidence throughout the K–12 years.[4]

**Family Engagement in Diverse Settings**

Family math can take root in a wide variety of organizational settings. Schools are a natural anchor, offering activities to spark math conversations at home or hosting Family Math Nights where caregivers and children engage in games and puzzles together. Early learning centers and community-based organizations can embed math into parenting workshops or literacy programs by adding a numeracy component. Libraries and museums can incorporate math into storytimes, exhibits, or even simple prompts posted in frequented spaces. In fact, studies show that playful signs or math-related messages in places like grocery stores or playgrounds can significantly boost parent–child math interactions.[5] Family engagement programs, afterschool programs, and youth clubs can further extend this engagement by sharing take-home game kits or inviting families to participate in math-focused student projects. Across all these settings, the goal is the same: to make math a shared, joyful part of everyday family life. By creatively weaving math into existing programs, organizations can reinforce learning beyond the classroom and affirm the valuable math that already happens at home and in the community.

# The Impact of Family Engagement on Children's Math Development

Research consistently shows that engaging families in math has powerful benefits for children's academic growth and confidence.

- **Stronger Math Skills**: Early math skills are among the strongest predictors of later academic success, and families play a critical role in nurturing those skills from the start.[6] When parents and caregivers incorporate math talk and playful activities into daily routines, they help build children's foundational understanding well before they enter school. Family math engagement is also a promising strategy for narrowing early achievement gaps, especially those that emerge as early as preschool.[7] Studies have linked quality family math interactions to stronger math knowledge, problem-solving skills, and overall school readiness. Even simple supports, like take-home games or educational apps, have been shown to increase parent-child interactions and lead to measurable gains in children's math abilities.

- **Positive Attitudes and Confidence**: Family engagement in math plays a powerful role in shaping children's attitudes and beliefs about math. Research shows that when parents and caregivers hold high expectations and express positive feelings about math, their children are more likely to develop confidence and perform better in the subject. This creates a cycle: children who feel supported and encouraged at home are more likely to enjoy math, persist through challenges, and see themselves as capable learners. Conversely, when caregivers experience math anxiety or hold negative memories of math, they may unintentionally limit math-related interactions at home, contributing to children's own math anxiety.[8]

- **Home–School Connections**: Family math strengthens the connection between classroom learning and real-life application at home. When families are actively engaged, they can reinforce and expand on what children are learning in school. For example, schools might send home interactive activities, like measuring ingredients for a recipe or conducting a simple family survey, that invite parents and children to explore math together.[9] These experiences not only give children additional practice in meaningful contexts but also help caregivers understand and support the concepts being taught in class.

- **Closing Gaps**: Family math engagement is also a powerful way to ensure that all children have opportunities to succeed. Children from families and communities that are most underserved often face limited access to formal enrichment opportunities. Yet they stand to gain the most from high-quality, everyday math experiences at home and in the community. Informal math talk and play can help bridge opportunity gaps by providing rich learning moments in familiar, culturally-grounded contexts.[10] However, access to strong family math resources has not always been equitable. Many programs still require costly materials, internet access, or transportation, barriers that exclude the very families who could benefit most.



# Reflect and Plan

In this first stage, organizations get up to speed on current family math research and practice, gather input on family math needs and priorities, and situate family math within organizational mission, vision, current programming, and funding.

# Get Up to Speed on Current Family Math Research and Practice

**What:** This first step of the Family Math Playbook invites organizations to build a shared understanding of what family math means today and to become grounded in the latest research, evidence, and examples from the field.

**Why:** Family math is more than helping with homework; it's about creating joyful, everyday opportunities for children and caregivers to explore math together in culturally relevant, developmentally appropriate, and identity-affirming ways. Understanding current findings, such as the importance of spatial reasoning, the role of caregiver mindset, or the power of playful routines, helps organizations align their efforts with what's proven to support children's learning. Getting up to speed ensures teams enter this work with a strong foundation, common language, and a clear view of both the possibilities and the inequities that family math can address. This is especially important for an emerging and rapidly growing subfield like family math, where new research and programmatic approaches are popping up frequently.

**Ideas in Action:**

**PBS SoCal**[12] is a public media organization serving Southern California that uses educational programming, community partnerships, and family-facing resources to support children's learning and development. Their commitment to family math was sparked by the growing body of research demonstrating the importance of early math and the role of family engagement in children's mathematical learning and development. Despite this, early math is often overlooked, especially in under-resourced communities where families may feel less confident supporting math at home. PBS SoCal recognized this gap and saw an opportunity to use its platform to empower families and promote school readiness by making math a natural, everyday experience. In 2019, the organization launched the Compton Family Math Initiative, a two-year pilot aimed at boosting kindergarten math readiness through culturally relevant, developmentally appropriate activities. The program reached thousands of families and led to measurable increases in caregiver confidence and understanding of math concepts. Encouraged by these results, PBS SoCal expanded the work into a multi-platform initiative with videos, games, and resources designed to make math joyful and accessible. Grounded in research and shaped by community voice, the initiative has become a sustainable model for family math engagement.

The **Early Math and Language Initiative**[13] **(EMLI)** is a Maine-based family learning program that uses research-informed activities to strengthen young children's early math, language, and social-emotional development alongside their caregivers. Before launching the program, EMLI founder Jayashree Sonti and co-founder Mary Goodie conducted extensive research highlighting early math's positive impact on language development, executive functioning, and social-emotional learning among young children. Research findings directly guided the program's 16 weekly sessions, which currently consist of math read-alouds, whole-group activities, and small-group activities with a child, parent, and volunteer. Families then receive materials to carry out activities at home. Research is at the center of this work. To ensure EMLI remains grounded in research, the program started an advisory council. Experts from various disciplines, such as early math, social-emotional learning, family literacy, and child psychology, serve on the advisory council to offer continued support.

# Assess Yourself

## Get Up to Speed on Current Family Math Research and Practice

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| Our team has a shared definition of "family math" that reflects current research and practice. | 1 | 2 | 3 | 4 | 5 |
| We are familiar with key findings from recent research on how families support children's mathematical development. | 1 | 2 | 3 | 4 | 5 |
| We are up-to-date on children's mathematical trajectories at the developmental periods our organization serves. | 1 | 2 | 3 | 4 | 5 |
| We understand the difference between constrained (e.g., counting, number recognition) and unconstrained (e.g., spatial reasoning, problem-solving) math skills, and their relevance for families. | 1 | 2 | 3 | 4 | 5 |
| We are aware of how culture, language, and identity shape families' experiences with math and their engagement in children's math learning. | 1 | 2 | 3 | 4 | 5 |
| We have explored how everyday activities (e.g., cooking, shopping, playing) can be used to support family math learning. | 1 | 2 | 3 | 4 | 5 |
| We can identify promising practices and programs that promote effective family math engagement. | 1 | 2 | 3 | 4 | 5 |
| We recognize common barriers families face in engaging with math (e.g., math anxiety, language access, scheduling, systemic inequities) and how they intersect. | 1 | 2 | 3 | 4 | 5 |
| We understand how adult mindsets, including caregivers' beliefs about math and their own math experiences, influence family math interactions. | 1 | 2 | 3 | 4 | 5 |

# Gather Input on Family Math Needs and Priorities

**What**: The second step in growing organizational capacity for family math focuses on listening to staff, families, children, and community partners to understand the existing needs, assets, interests, and priorities related to family math.

**Why:** Rather than assuming what is needed, organizations that are successful in family math create space to learn how math is currently experienced and valued across diverse settings, what barriers or opportunities exist, and what goals matter most to those they serve. This process helps ensure that family math efforts are responsive, equitable, and grounded in lived experience. Gathering input also builds trust, surfaces strengths that may otherwise go unrecognized, and lays the groundwork for shared ownership and more sustainable, culturally relevant programming.

I**deas in Action:**

**Abriendo Puertas/Opening Doors**[14] is a family engagement organization that develops culturally responsive programs and resources with and for Latino families. When they set out to update their signature curriculum for a third edition, they didn't start with assumptions. Beginning in 2015, they listened closely to their facilitators and communities through focus groups and feedback sessions, drawing on lessons from their second edition and insights from national sector leaders. The result? A thoughtful integration of family math into their 2017 curriculum that felt grounded, relevant, and culturally resonant. Then came the pandemic, and with it, their annual Latino Family Survey revealed that math learning loss was families' top concern, outpacing all others by a wide margin. Families weren't just naming a challenge; they were pointing to a future. Later surveys showed strong interest in STEM careers for their children, underscoring the need for math confidence and skills. These efforts highlight Abriendo Puertas' ongoing commitment to listening to families and strengthening family math learning.

# Assess Yourself

## Gather Input on Family Math Needs and Priorities

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We have asked families how they currently support math learning at home and what kinds of support or resources they would find helpful. | 1 | 2 | 3 | 4 | 5 |
| We have gathered input from children and youth about what kinds of math they enjoy (or don't enjoy) doing with their families and why. | 1 | 2 | 3 | 4 | 5 |
| Our staff has discussed what they observe about families' engagement in math—both strengths and barriers—and how we might better support them. | 1 | 2 | 3 | 4 | 5 |
| We've connected with local organizations (e.g., libraries, community centers, faith-based groups) to learn how they are incorporating math into family programming, if at all. | 1 | 2 | 3 | 4 | 5 |
| We ask questions that explore how culture, language, and lived experiences shape the way families view and engage with math at home. | 1 | 2 | 3 | 4 | 5 |
| We intentionally reach out to families who may have had negative experiences with math or school, or who speak languages other than English, to understand their needs and hopes. | 1 | 2 | 3 | 4 | 5 |

# Situate Family Math within Organizational Mission, Vision, Current Programming, and Funding

**What:** This step is about connecting family math to the heart of your organization, including its mission, vision, values, and day-to-day activities.

**Why:** Embedding family math into existing priorities and programming ensures it is not treated as an add-on, but as a meaningful and integrated part of your work. Whether your organization focuses on early literacy, STEM, community development, or youth engagement, there are natural intersections with family math that you can leverage. When family math is clearly situated within your organizational identity and goals, it becomes easier to communicate its relevance, mobilize internal support, and pursue partnerships and resources that advance your mission. Leaders such as principals, program directors, or administrators play a critical role in setting this tone. Their visible support can signal to staff and families that this work matters and put critical conditions, such as funding, staffing time, and resources, into place to support these efforts.

**Ideas in Action:**

**Tandem Partners in Early Learning**[15] is a San Francisco–based organization that supports young children and families by integrating early literacy and math into engaging, culturally responsive learning experiences. Originally a literacy-focused organization, Tandem now infuses family math into familiar practices like read-alouds, effectively "pairing the familiar with the strange" to make math more approachable. By weaving math talk into everyday reading, the organization helps reduce anxiety around math for both parents and educators. Tandem intentionally works to shift the "I'm not a math person" mindset by modeling how accessible and natural math can be. Their key advice: begin by embedding math into what you're already doing.

# Assess Yourself

## Situate Family Math within Organizational Mission, Vision, and Current Programming and Funding

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| Our organization's mission and/or vision explicitly or implicitly supports goals that align with promoting family engagement in math learning. | 1 | 2 | 3 | 4 | 5 |
| We can clearly articulate how family math connects to our core focus areas (e.g., literacy, STEM, school readiness, parent leadership, or community development). | 1 | 2 | 3 | 4 | 5 |
| We have reviewed our current programs and identified where family math is already present or where it could be meaningfully integrated. | 1 | 2 | 3 | 4 | 5 |
| We have considered how family math can strengthen or complement our existing services or curricula (e.g., storytime, parenting classes, afterschool enrichment). | 1 | 2 | 3 | 4 | 5 |
| Our staff understands how family math fits into the organization's broader goals and feels confident talking about its relevance. | 1 | 2 | 3 | 4 | 5 |
| We have identified potential alignment between family math efforts and current or upcoming funding streams or grant opportunities. | 1 | 2 | 3 | 4 | 5 |
| We see family math not as a separate initiative, but as a lens we can apply to enhance how we engage families across multiple programs. | 1 | 2 | 3 | 4 | 5 |
| Leaders in our organization have publicly supported family math and are involved in planning, championing, or resourcing these efforts. | 1 | 2 | 3 | 4 | 5 |



# Connect and Build Capacity

In this second phase, organizations build the capacity of both staff and parents and communicate about the importance of family math with key partners.

# Build Staff and Leadership Capacity for Family Math

**What:** Building staff and leadership capacity means ensuring that everyone in the organization, not just educators, has the knowledge, skills, and confidence to support and promote family math. This includes understanding key research, recognizing the value of everyday math experiences, and developing positive, culturally responsive mindsets about math learning. It also means equipping leaders to champion family math as a strategic priority and to model its importance in decision-making, resource allocation, and partnerships. The Family Math Core Competencies provide a roadmap and a scope and sequence for how to build these professional learning opportunities.

**Why:** When staff and leadership are prepared and have opportunities to grow their skills and practice, family math becomes not just a program, but a shared commitment woven into the fabric of the organization. This step is critical because staff are often the trusted connectors between families and programs, and leaders set the tone for what gets prioritized and resourced. When both are confident and aligned, organizations are better positioned to integrate family math into their core work, sustain efforts over time, and build stronger relationships with families that empower them as partners in learning.

Professional development on family and community engagement helps staff see parents as partners and equips them with practical strategies. Staff may also need support in building their own comfort with math, especially when it comes to explaining concepts in simple, relatable ways. Professional learning opportunities, such as workshops on leading a family math game night or communicating a child's progress with empathy, can make a significant difference. Organizations that are truly ready to implement family math initiatives ensure that staff are well-prepared and supported. Identifying and nurturing a few "family math champions" within the organization, meaning staff who are especially enthusiastic and knowledgeable, can also help sustain momentum and serve as peer mentors. Ultimately, readiness means ensuring that staff have both the will and the skill to engage families in mathematics with confidence and care.

**Ideas in Action:**

The **School District of Philadelphia**[16] is building a professional development model that centers family math as a catalyst for shifting educator mindsets and deepening family engagement. While core professional development focuses on curriculum, family math is addressed through a structured, four-part virtual series designed to empower teachers as changemakers. Educators explore the foundations of family math, examine their current practices, and learn to adapt existing activities to better connect with families. Sessions guide them through building relationships, sharing accessible resources, and co-designing joyful, culturally relevant math events with families. The series directly addresses common barriers such as math anxiety and attendance assumptions, encouraging educators to "market math" differently by emphasizing everyday experiences over worksheets. Turnkey tools help teachers highlight the math already present in families' lives, while reinforcing the idea that families bring rich knowledge and strengths. The ultimate goal is to create a "family math ecosystem" in which positive messages about math are reinforced across schools, libraries, and communities and committed champions make family math visible, joyful, and inclusive.

# Assess Yourself

## Build Staff and Leadership Capacity for Family Math

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| Our staff understands what family math is and why it is important for children's development and long-term success. | 1 | 2 | 3 | 4 | 5 |
| Staff across roles, not just those in instructional positions, see themselves as part of supporting family math engagement. | 1 | 2 | 3 | 4 | 5 |
| We provide professional development or learning opportunities focused on culturally responsive and developmentally appropriate approaches to family math. | 1 | 2 | 3 | 4 | 5 |
| Our staff is familiar with the ways everyday activities (e.g., cooking, storytelling, play, sports) can be used to engage families in math. | 1 | 2 | 3 | 4 | 5 |
| We actively work to build positive math mindsets among staff, including addressing math anxiety and fixed beliefs about who is "good at math." | 1 | 2 | 3 | 4 | 5 |
| We have internal champions or go-to team members who are knowledgeable about family math and can mentor others. | 1 | 2 | 3 | 4 | 5 |
| Staff have access to tools, activities, or materials they can use to support family math in their day-to-day work. | 1 | 2 | 3 | 4 | 5 |
| Our leadership team sees family math as aligned with our organizational priorities and includes it in strategic planning and goal setting. | 1 | 2 | 3 | 4 | 5 |
| We regularly assess staff comfort and confidence in promoting family math and offer follow-up support based on their needs. | 1 | 2 | 3 | 4 | 5 |

# Build Parent Capacity and Leadership Potential for Family Math

**What:** This step is about recognizing families not just as participants in their children's math learning, but as leaders, advocates, and co-creators in shaping what family math looks like in their communities.

**Why:** Building parent leadership means investing in families' knowledge, skills, and confidence to support math at home, speak up about their children's learning needs, and help guide programs, policies, and messaging. When organizations build families' capacity to engage in this way, families bring powerful insights, cultural strengths, and authentic voices that make family math more relevant, inclusive, and sustainable. It also helps shift the narrative from "families need support" to "families are experts," creating stronger partnerships and more equitable systems for learning. Organizations can help build parent capacity in various ways. For example, they might host parent math nights that demystify teaching approaches. They might identify and support parent leaders or "ambassadors" who are enthusiastic about family math and eager to share what they've learned. These ambassadors can host informal playgroups, model math activities, or simply spread the word about upcoming events in their communities, leveraging existing trust and social networks. Organizations can also incorporate family math into existing parent leadership structures like PTAs or parent councils, allowing trusted parent voices to normalize math engagement. This peer-led approach boosts participation and fosters a sense of community ownership.

**Ideas in Action:**

The **Family Math Parent Advisory Council**[17](PAC) is a diverse group of parent, grandparent, and caregiver leaders who partner directly with NAFSCE's Center for Family Math to co-curate and shape online resources for families. Together with the Center and subject-matter experts, this nine-member Council reviews, rates, and refines resources, prioritizing inclusivity, accessibility, engagement, and cultural relevance, to ensure that featured materials resonate deeply with real family needs and experiences. Their feedback has meaningfully shaped resource inclusion. For example, over one-third of potential resources were removed after failing to meet PAC priorities, even though they had been approved by math content experts. This collaborative model not only ensures the Center's online library is rooted in family voices, but also empowers families as credible messengers. PAC members have authored and shared tools like the "Make It Math" toolkit in webinars and at conferences. In centering the PAC, the Center for Family Math upholds its belief that meaningful family engagement begins at birth, ensuring that resources are designed with families, by families, and for families.

**TERC**[18] is a nonprofit math and science education organization based in Cambridge, Massachusetts, whose family math initiatives—including Aprendiendo, the Paraeducator and Parent Partnership Project, and Doing the Math with Families—demonstrate how families can move from participating in programs to leading them. Across these projects, TERC treats parents and paraeducators as experts whose lived experiences, community relationships, and knowledge of children should shape the design and delivery of family math programming. Families are invited to test activities, adapt materials, provide ongoing feedback, and identify the language and approaches that will be most accessible and meaningful within their communities. TERC also creates pathways for parents to become mentors and facilitators, supporting new groups of families and developing the confidence to teach math activities, advocate for their children, and sustain the work beyond a single workshop or project. TERC advises other organizations to build parent leadership from the beginning rather than presenting families with fully developed resources. This requires investing time in relationships, compensating families for their expertise, creating regular and comfortable opportunities for honest feedback, and partnering with trusted community organizations that already have strong parent networks. By embedding family math within existing parent leadership structures, organizations can build programs that are more responsive, sustainable, and rooted in community ownership.

# Assess Yourself

## Build Parent Capacity and Leadership Potential for Family Math

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We create opportunities for families to learn about early math development and how to support it through everyday activities. | 1 | 2 | 3 | 4 | 5 |
| We actively encourage and support parents and caregivers to share their own math-related experiences, strengths, and cultural practices. | 1 | 2 | 3 | 4 | 5 |
| Our programs include roles for families to design, lead, or advise on family math activities, resources, or messaging. | 1 | 2 | 3 | 4 | 5 |
| We offer workshops, training, or peer learning opportunities that build families' confidence and leadership in supporting math learning at home and in the community. | 1 | 2 | 3 | 4 | 5 |
| We recognize and promote parent and caregiver voices as central to shaping our family math strategies and decisions. | 1 | 2 | 3 | 4 | 5 |
| We support family leaders to advocate for stronger math support in schools, community spaces, and policy conversations. | 1 | 2 | 3 | 4 | 5 |
| Our organization makes intentional efforts to engage families from historically underrepresented communities as leaders in family math. | 1 | 2 | 3 | 4 | 5 |
| We regularly create ways for families to mentor other families around family math. | 1 | 2 | 3 | 4 | 5 |
| We celebrate and share stories of family-led math moments, ideas, and innovations within our organization and beyond. | 1 | 2 | 3 | 4 | 5 |
| We see families as long-term partners in shaping the future of family math, not just participants in one-time programs. | 1 | 2 | 3 | 4 | 5 |

# Communicate and Raise Awareness About the Importance of Family Math

**What:** Now that you've built capacity, it's time to make family math even more visible, valued, and understood, both within your organization and across the broader community. This stage involves crafting clear, compelling messages about why family math matters, who it benefits, and how it can look in everyday life.

**Why:** Strategic and consistent communication is essential for making family math a shared priority across an organization. Whether engaging staff, families, funders, or community partners, clear and compelling messaging helps break down common myths, such as "I'm not a math person," and opens the door to greater participation. When people understand that math can be joyful, doable, and woven into everyday life, they're more likely to get involved. Organizations can use a variety of communication tools, including social media, newsletters, family workshops, videos, school apps, or text messages, to reach different audiences in accessible and culturally relevant ways.

Celebrating family participation through stories and photos helps build community and makes family math visible and valued. Equally important is two-way communication: inviting families to share their own strategies, ask questions, or offer feedback helps improve programming and reinforces that their voices matter. Outreach can also go beyond traditional school channels. Organizations should assess whether they are using trusted and accessible avenues like community centers, faith-based groups, or parent networks to connect with families, especially those who may not regularly attend events or receive updates. Personalized outreach, such as phone calls or partnering with bilingual liaisons, can help build trust and ensure no family is left out.

**Ideas in Action:**

**EDC**[19] is a nonprofit research and development organization that creates evidence-based programs and resources to improve learning, health, and well-being in communities around the world. It uses communication as a core strategy to raise awareness about family math and to inspire families and educators to recognize math as a natural, joyful part of everyday life. In the Young Mathematicians in Worcester[20] (YM-W) project, EDC and its partners work to shift perceptions by helping families see themselves as powerful supporters of their children's early math development. Through targeted messaging and intentional outreach, YM-W emphasizes that everyday moments, like setting the table, sorting laundry, or playing familiar games, are rich with mathematical learning. To build strong family math learning communities, EDC communicates across multiple platforms and formats. They share home versions of classroom math games with multilingual instructions, distribute printable mini-books in several languages, and send out "Math Monday" text messages with quick, practical ideas for integrating math into daily routines. Social media campaigns further extend their reach, using platforms like Facebook and Twitter to provide ongoing encouragement and resources. Family math advisors, primarily parents from Worcester Head Start and Worcester Family Partnership, play an essential role in shaping this communication, helping to tailor materials and strategies that resonate with diverse families. Its *Young Mathematicians*[21] website also includes over 50 videos in English and Spanish that families can use to learn about, practice, and model new games with their children.

**The New Jersey Family Engagement Hub**[22] is New Jersey's federally funded Statewide Family Engagement Center, providing family engagement resources and technical assistance throughout the state. To create an easy and natural entry point for parents and educators to find math in everyday activities, the Hub created a three-part webinar series around the Math of Food. Through conversations surrounding cooking, eating, and grocery shopping, families can explore mathematical ideas like fractions, ratios, data, and geometry. This helps families see that math is not limited to the classroom but is present in everyday activities like cooking, eating, and grocery shopping. Math is everywhere, and Math of Food ideas make it easy for even busy parents to incorporate math into their daily routines by showing families that they are already using math without even realizing it. Math of Food emphasizes that it only takes a few simple questions to discover math when they are cooking.

# Assess Yourself

## Communicate and Raise Awareness About the Importance of Family Math

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We have a clear and consistent message about why family math matters and how it benefits children and families. | 1 | 2 | 3 | 4 | 5 |
| We tailor our family math messaging for different audiences, including families, staff, community partners, and funders. | 1 | 2 | 3 | 4 | 5 |
| We regularly share real-life examples or stories that show how families are engaging with math in everyday ways (e.g., cooking, shopping, playing). | 1 | 2 | 3 | 4 | 5 |
| We use accessible, culturally relevant, and multilingual materials to communicate about family math with the communities we serve. | 1 | 2 | 3 | 4 | 5 |
| We actively work to challenge common misconceptions (e.g., "math is too hard" or "only teachers do math") through our communications. | 1 | 2 | 3 | 4 | 5 |
| We use a variety of platforms (e.g., newsletters, social media, text campaigns, in-person events) to share family math messages and resources. | 1 | 2 | 3 | 4 | 5 |
| We have included family math messaging in staff onboarding, training, or internal communications to ensure shared understanding. | 1 | 2 | 3 | 4 | 5 |
| We collaborate with trusted messengers (e.g., parent leaders, community partners, educators) to help raise awareness about family math in authentic and trusted ways. | 1 | 2 | 3 | 4 | 5 |



# Design, Implement, and Collaborate

In the third phase, organizations begin to co-design family math programming with parents and content experts, implement the family math programming, and activate partnerships to bring the programming beyond the four walls of their organization.

# Co-Design Family Math Programming With Parents and Content Experts

**What:** Co-designing family math programming means developing initiatives with families, not just for them, alongside family math experts, educators, and organizational staff.

**Why:** A co-design approach leads to programming that is more relevant, respectful, and engaging, while also deepening trust and ownership. This begins with inviting families to share how they use math in their everyday lives and incorporating these practices into the program design. For example, games like lotería from Mexico and Loodie from Jamaica have been used as the foundation of family math nights and signal to families that their cultural practices are assets in learning. Co-design also requires practical commitments, including dedicated staffing, budget, and time, to ensure the process is meaningful and sustainable. When families are true partners in shaping family math efforts, the result is programming that reflects community strengths and resonates in real life. An organization that is ready for this work will have identified family representatives or will be actively preparing to recruit them. Inclusion also means cultivating a welcoming climate where staff are trained in cultural responsiveness and strategies to engage families who may otherwise have limited access to co-design opportunities.

**Ideas in Action:**

**MathTalk**[23] is a community-centered family math organization that brings together educators, families, researchers, artists, and designers to transform everyday spaces, stories, and technology into joyful, culturally relevant math learning experiences. MathTalk's commitment to family-centered mathematics began in 2016 in the Cambridgeport neighborhood of Cambridge, Massachusetts, where it launched place-based learning experiences co-designed with families and community stakeholders. Through this collaborative process, everyday public spaces like playgrounds, barbershops, bodegas, and restaurants were transformed into interactive math learning environments using community-driven "math hacks" and installations. At the heart of MathTalk's approach is the belief that families are experts in their children's learning. Professionals are trained to listen deeply to family voices, particularly around math anxiety, and to use those insights to guide every stage of the design process. By co-designing directly with families, MathTalk creates math experiences that are culturally relevant and grounded in real life, from math trails tied to neighborhood landmarks to activities that connect math to cooking and traditions. Community "hack-a-thons" with partners like MIT have helped turn grassroots ideas into meaningful neighborhood resources. MathTalk also uses innovative tools like the Math! Everywhere! augmented reality app, which invites families to engage with math throughout their community and earn rewards for their participation.

# Assess Yourself

## Co-Design Family Math Programming With Parents and Content Experts

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We engage families early in the design process, not just during implementation or after decisions have been made. | 1 | 2 | 3 | 4 | 5 |
| We partner with families to co-create family math activities, materials, or events that reflect their lived experiences, languages, and cultural strengths. | 1 | 2 | 3 | 4 | 5 |
| We work with family math experts or educators to ensure programming is developmentally appropriate, research-informed, and aligned with best practices. | 1 | 2 | 3 | 4 | 5 |
| Our organization dedicates staff time and resources specifically for family math co-design and collaboration. | 1 | 2 | 3 | 4 | 5 |
| We provide compensation, childcare, translation, and other support to reduce barriers for family participation in co-design processes. | 1 | 2 | 3 | 4 | 5 |
| We use feedback loops (e.g., listening sessions, surveys, advisory groups) to continuously refine and adapt family math programming based on input from families. | 1 | 2 | 3 | 4 | 5 |

# Implement Family Math Programming

**What:** This step is about putting plans into action by delivering high-quality, engaging family math programming that reflects what families want and need.

**Why:** Even the most well-designed family math programs will fall short if they aren't accessible, engaging, and relevant to families' real lives. Family math implementation requires attention to both logistics and content to ensure meaningful and equitable participation. First, logistical accessibility is essential. Organizations must plan when, where, and how families can engage, removing barriers through flexible scheduling, childcare, transportation support, translation, and options like virtual participation. Equally important is the strategic use of space and support, with events held in trusted community locations, such as libraries or apartment complexes, and enhanced by welcoming elements like meals, low-cost materials, and small incentives. Effective programs also focus on embedding math into everyday life, helping families see how math naturally fits into routines like cooking, sorting laundry, or grocery shopping, supported by simple tools such as idea lists or short videos. Finally, effective implementation includes digital and low-tech resources, such as free apps and printable activities, with consideration for families who may lack reliable internet or device access. Together, these strategies make family math programming inclusive, practical, and rooted in real family experiences.

**Ideas in Action:**

**PowerMyLearning**[24] is an education organization that develops accessible, technology-enabled learning experiences connecting classroom instruction with meaningful family engagement. PowerMyLearning's MathVoice[25] empowers K-3 students to strengthen grade-level math skills, explain their thinking, and build confidence. Designed for grades K-3, MathVoice is a series of online activities and ideas that support hands-on, standards-aligned math experiences that children complete with their families using everyday materials. After the activity, students record short videos or audio reflections explaining their reasoning, which teachers use to better understand student thinking and inform instruction. The implementation model is straightforward and designed to fit within existing school structures. Teachers assign activities digitally, families receive them in their preferred language via text or email, and no special apps or logins are required. Professional learning accompanies the rollout to help educators focus on math mindsets, student discourse, and family engagement strategies. Leadership support ensures consistency and alignment across classrooms and schools. Early evidence suggests that MathVoice contributes to gains in math understanding, confidence, and communication, with particularly strong outcomes among multilingual learners. This approach shows how thoughtful integration of family participation in learning, combined with accessible technology and teacher support, can strengthen both academic outcomes and home-school connections.

**Raising a Reader**[26] is a national early literacy organization that partners with families, schools, and communities to build joyful learning routines through books and shared activities. Their "Family Math Book Bag" was created in partnership with the Center for Family Math, PowerMyLearning, and the Erikson Institute[27] to provide parents with resources to support their children's math learning at home. The book bags work to combat the math anxiety that parents may feel and help families recognize that math already exists in everyday life. Every bag includes a bilingual family guide, curated bilingual storybooks, and hands-on manipulatives. The guide encourages parents to practice "math talk." A beta test was conducted across six states, with 92% of families reporting that their child was excited about the books and 93% reporting that the learning guides were easy to use and understand. These positive beta-testing results have led to broader dissemination of the family math book bags to schools and families in Los Angeles.

# Assess Yourself

## Implement Family Math Programming

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| Our family math programming emphasizes fun, hands-on, real-world activities that families can easily do together in everyday life (e.g., cooking, shopping, playing games). | 1 | 2 | 3 | 4 | 5 |
| We offer family math activities that reflect culturally relevant practices, home languages, and community routines. | 1 | 2 | 3 | 4 | 5 |
| Our staff is trained to lead family math programming in a way that is joyful, strengths-based, and welcoming to all caregivers, regardless of their own math experiences. | 1 | 2 | 3 | 4 | 5 |
| We have secured or created materials (e.g., take-home games, storytelling prompts, kitchen math kits) that support playful, informal family math learning. | 1 | 2 | 3 | 4 | 5 |
| We provide resources and ideas that show families how to weave math into daily routines, rather than requiring extra time or materials. | 1 | 2 | 3 | 4 | 5 |
| We ensure families have access to support (e.g., transportation, food, childcare, interpretation) so they can comfortably attend and participate in family math events. | 1 | 2 | 3 | 4 | 5 |
| We've prioritized scheduling and delivery formats (e.g., weekend events, text messages, pop-up math moments) that make it easy for families to engage. | 1 | 2 | 3 | 4 | 5 |
| Our programming emphasizes shared exploration and conversation between children and caregivers, not just instruction. | 1 | 2 | 3 | 4 | 5 |
| We have allocated the staffing, space, and funding needed to support the consistent delivery of joyful, everyday family math programming over time. | 1 | 2 | 3 | 4 | 5 |

# Activate Family Math Partnerships

**What:** This step is about establishing strong, intentional collaboration with community partners like schools, libraries, museums, early learning programs, faith-based groups, and local businesses, so that families see joyful, relevant family math opportunities throughout their daily experiences.

**Why:** Activating partnerships is essential to making family math programming more inclusive, sustainable, and impactful. These collaborations go beyond expanding reach. They allow organizations to co-create experiences that reflect community voices, share expertise, and design culturally relevant programs rooted in families' strengths. Partnerships also help extend visibility and access by bringing math into familiar, welcoming settings like community centers, festivals, or multicultural nights where families may feel more comfortable and engaged. By embedding math into existing community events and spaces, organizations lower barriers and introduce math in joyful, low-pressure ways. Importantly, partnerships distribute the responsibility for math learning across a network of institutions, allowing families to encounter math year-round rather than just during school hours. This creates a connected ecosystem where family math becomes part of everyday community life, not just a standalone initiative.

**Ideas in Action:**

The **California Family Math Initiative (CFMI)**[28] is a cross-sector partnership that brings together families, educators, community organizations, and researchers to strengthen family-school partnerships and promote joyful, culturally responsive math learning for children in transitional kindergarten through second grade in four schools in Los Angeles. At the heart of CFMI is the recognition that advancing early math engagement takes a *constellation of partners* from families and educators to community organizations and district leaders. CFMI brings together key partners, including Raising a Reader, PowerMyLearning, the Partnership for Los Angeles Schools, and the Center for Family Math at NAFSCE. Together, they co-develop and deliver high-quality resources such as Family Math Home Library Kits, interactive math activities as part of the MathVoice digital app, and family math professional learning. These resources are supported and sustained by strong implementation support for educators and school leaders. The initiative is being evaluated by SRI International through a phased, mixed-methods approach that includes surveys, focus groups, interviews, and usage data. The evaluation examines how CFMI is implemented across schools, how families engage with math at home, and how confidence and capacity grow among families, teachers, and leaders. CFMI exemplifies how cross-sector collaboration aims to build lasting infrastructure for equitable and engaging family math experiences across California.

# Assess Yourself

## Activate Family Math Partnerships

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We have mapped community resources and built relationships with partners, such as libraries, museums, early learning programs, schools, and community centers, that can support joyful, everyday family math through games, hands-on activities, and shared events. | 1 | 2 | 3 | 4 | 5 |
| We collaborate with partners in co-creating family math programming that draws on their unique strengths, for example, museums that spark math curiosity and wonder, or libraries that offer tutoring, storytimes, and trusted spaces for families. | 1 | 2 | 3 | 4 | 5 |
| We partner with organizations that families already frequent in daily life, helping to reinforce the idea that math learning happens everywhere and all the time. | 1 | 2 | 3 | 4 | 5 |
| We have developed shared goals with our partners, including plans for co-hosting math nights, distributing family math kits, or creating bilingual materials tied to everyday activities. | 1 | 2 | 3 | 4 | 5 |
| We intentionally seek out culturally relevant partners who reflect and celebrate the communities we serve, ensuring family math is inclusive and identity-affirming. | 1 | 2 | 3 | 4 | 5 |
| We involve families and community partners in co-designing family math experiences, such as games, outdoor math walks, or cooking-based math activities, that reflect real-life routines and values. | 1 | 2 | 3 | 4 | 5 |
| We actively pursue funding and in-kind contributions (e.g., free admission, materials, books, snacks) from partners that help reduce barriers to participation and increase program sustainability. | 1 | 2 | 3 | 4 | 5 |

# Assess Yourself

## Activate Family Math Partnerships

**(Continued)**

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We integrate family math into existing events or services offered by partners, such as pop-up math at library storytime or math trails during museum family days. | 1 | 2 | 3 | 4 | 5 |
| We meet regularly with our partners to reflect on what's working, share family feedback, and plan for future collaboration on joyful and accessible family math activities. | 1 | 2 | 3 | 4 | 5 |
| We view family math as a shared opportunity across our community and regularly identify ways that each partner's assets, including space, relationships, creativity, and trust, can make math more visible, joyful, and possible for all families. | 1 | 2 | 3 | 4 | 5 |



# Lead, Learn, and Sustain

In this final phase, organizations put in place processes to conduct formative and summative evaluations of their work, develop policies to support their family math practices, and engage in efforts to sustain the work.

# Conduct Formative and Summative Evaluation

**What:** Because family math is an emerging and evolving area of practice, evaluation plays a critical role in helping to understand the influence of programming on family engagement, children's learning, and organizational capacity. Conducting both formative and summative evaluation helps organizations understand what they are doing, how it is working, and why it matters.

**Why:** Evaluation is a critical component of effective family math programming because it ensures that efforts are both impactful and continuously improving. Formative evaluation helps organizations refine implementation in real time by gathering feedback from staff, families, and partners to make programming more relevant, joyful, and accessible. In contrast, summative evaluation focuses on outcomes, such as increased family confidence and children's math development, providing evidence of effectiveness and informing long-term impact. To support readiness and sustainability, organizations should establish clear indicators of success, such as event attendance, changes in parent attitudes, and teacher observations. Equally important is collecting direct feedback from families, which helps uncover potential barriers and guide responsive changes. Rather than assuming low turnout means lack of interest, data can reveal underlying issues like scheduling or communication gaps. Evaluation should be an active, reflective process: teams must regularly review and discuss findings, then use insights to adjust their approach. In this way, evaluation supports a culture of learning and adaptation, ensuring that family math programming remains meaningful, equitable, and effective over time.

**Ideas in Action:**

The **Parent Institute for Quality Education**[29] (PIQE) is a California-based nonprofit that partners with families and schools to strengthen family engagement and support children's academic success. PIQE is using a mixed-methods evaluation approach to assess the effectiveness of its *Family Math Together*[30] program, combining quantitative surveys with qualitative feedback to capture a holistic picture of its impact. Families participating in the 8-week workshop series complete surveys before and after the program to measure changes in their attitudes, knowledge, and confidence related to supporting math at home. In addition, focus groups and interviews offer deeper insights into parent experiences, allowing PIQE to understand not just what changed, but why. This evaluation design tracks both outputs, such as participation rates, and outcomes like increased math talk and reduced anxiety, helping the organization continually refine its approach. The evaluation is being rolled out in phases. In its initial pilot phase during the 2024–25 school year, Family Math Together launched in select California schools, including Walter White Elementary in Ceres. During this stage, PIQE focused on establishing baseline measures and collecting immediate feedback to assess short-term impacts. With each new cohort, data continues to be gathered and analyzed to inform program improvement.

# Assess Yourself

## Conduct Formative and Summative Evaluation

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We have a process for gathering feedback from families about their experiences with family math activities (e.g., usefulness, enjoyment, accessibility). | 1 | 2 | 3 | 4 | 5 |
| We collect information on how children are engaging with family math, whether through observation, reflection from families, or child self-expression. | 1 | 2 | 3 | 4 | 5 |
| We ask families if and how their confidence, attitudes, or routines around math have changed since participating in family math programming. | 1 | 2 | 3 | 4 | 5 |
| We track how many families participate in family math programming and what kinds of activities or events they engage with (e.g., games, take-home kits, workshops). | 1 | 2 | 3 | 4 | 5 |
| We assess how consistently and effectively family math programming is implemented across staff, settings, or partner sites. | 1 | 2 | 3 | 4 | 5 |
| We have built-in reflection or learning cycles (e.g., surveys, focus groups, team debriefs) that inform ongoing improvement of family math offerings. | 1 | 2 | 3 | 4 | 5 |
| We track organizational-level outcomes, such as increased staff capacity, new partnerships, or deeper integration of family math into our mission and programs. | 1 | 2 | 3 | 4 | 5 |
| We measure the extent to which family math programming aligns with community needs and priorities as expressed by families and partners. | 1 | 2 | 3 | 4 | 5 |
| We analyze participation and outcome data disaggregated by demographics (e.g., language, race/ethnicity, income) to ensure equity in reach and impact. | 1 | 2 | 3 | 4 | 5 |
| We have strategies in place to share information with families about their children's math learning and growth in ways that are clear, culturally responsive, and supportive of continued learning at home. | 1 | 2 | 3 | 4 | 5 |

# Develop Policies to Support Family Math Practices

**What:** To sustain and scale family math, organizations need policies that intentionally create the conditions for joyful, everyday math learning to thrive.

**Why:** Policies make priorities visible by embedding family math into the structures, routines, and expectations that guide how programs operate and grow. This includes supporting staff through dedicated planning time and training, designing inclusive and culturally relevant curricula, and ensuring equitable access for all families. For example, a school might include family math in its family engagement policy or build it into home-school communication tools. A library could remove fines or host bilingual math storytimes, while a museum might offer free admission days paired with math-based scavenger hunts. When policies reflect a belief that children, families, and staff are active, capable math learners and leaders, they help normalize math as something joyful, meaningful, and woven into everyday life, not just what happens in a classroom.

**Ideas in Action:**

**Just Equations**[31] is a nonprofit organization that advances equitable math policies and pathways to help all students prepare for and succeed in college and their future careers. Its policy work is grounded in three core goals: (1) advancing public school policies that provide all students with a strong foundation in quantitative reasoning to prepare them for college success; (2) eliminating arbitrary barriers in postsecondary admissions that hinder equitable access to college readiness and completion; and (3) redesigning math pathways to align with 21st-century demands and students' academic and career aspirations. Central to achieving these goals is the belief that math policies must be not only rigorous and well-aligned across systems, but also equitable and inclusive of families. Through its educator residency program and district-level work, Just Equations highlights the need for policies that embed family engagement as a core strategy, bridging the "information gap" that often leaves families, particularly in marginalized communities, unaware of positive math pathways. Their approach supports the development of policies that prioritize transparent communication of academic expectations, empower families to support their children's math journey, and build stronger connections between math education and parent-facing organizations.

The **Ohio Statewide Family Engagement Center**[32] supports families, educators, and school systems across the state with research, resources, and technical assistance designed to strengthen family engagement. In a recent statewide survey in partnership with the Ohio Department of Education and Workforce, the Ohio team sought to better understand parental attitudes toward math. The survey included a variety of questions, such as fill-in-the-blank prompts ("Math is…") and true-or-false statements ("I know how my child is graded in math"), to gain insight into parents' concerns, priorities, and goals for their children. The survey also aimed to learn about what resources parents would find useful. The collected data can help inform decisions in the education system, and it can help develop school and district policies that can later be turned into legislative policy. The findings can be shared with advisory bodies and used to inform specific offerings, such as family-facing resources, teacher training, curriculum supports, or policy recommendations.

# Assess Yourself

## Develop Policies to Support Family Math Practices

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We have policies that encourage or require the integration of family math into programming (e.g., including math in family engagement plans, curriculum guidelines, or grant deliverables). | 1 | 2 | 3 | 4 | 5 |
| We provide dedicated time in staff schedules or contracts for designing and delivering family math activities (e.g., co-planning sessions, family math nights, or take-home kits). | 1 | 2 | 3 | 4 | 5 |
| Our staff development policies include required or incentivized training in early math development, family engagement strategies, and culturally responsive math practices. | 1 | 2 | 3 | 4 | 5 |
| We have policies that remove participation barriers for families, such as eliminating library fines, offering free museum admission during family math events, or providing transportation and meals at school-based math nights. | 1 | 2 | 3 | 4 | 5 |
| We intentionally offer family math programming in families' home languages and reflect diverse cultural ways of engaging with math (e.g., counting games, storytelling, cooking-based activities). | 1 | 2 | 3 | 4 | 5 |
| Our family engagement policies include specific goals or expectations around math, such as providing families with weekly math tips, sharing children's math milestones, or offering math-focused home visits. | 1 | 2 | 3 | 4 | 5 |
| We have systems or policies in place to regularly collect input from families about how they experience math at home and what kinds of support they want. | 1 | 2 | 3 | 4 | 5 |

# Assess Yourself

## Develop Policies to Support Family Math Practices

**(Continued)**

| | | | | | |
|---|---|---|---|---|---|
| We prioritize policies that make space for families to lead or co-create math activities (e.g., parent advisory councils shaping content, family-led game nights, or community math walks). | 1 | 2 | 3 | 4 | 5 |
| We ensure equity by adopting flexible formats and settings for family math engagement (e.g., mobile math programming at laundromats or grocery stores, or asynchronous digital access to games and activities). | 1 | 2 | 3 | 4 | 5 |
| Leadership and governing boards have adopted or endorsed a clear commitment, formally or informally, to advancing joyful, everyday family math as part of the organization's mission and values. | 1 | 2 | 3 | 4 | 5 |

# Sustain Family Math Efforts Through Funding, Continuous Improvement, and Expansion

**What:** Sustaining family math efforts means more than securing funding. It's about building the structures, relationships, and momentum needed to keep the work alive and growing over time.

**Why:** Sustainability includes investing in staff capacity, embedding family math into onboarding and ongoing professional learning, and developing systems for sharing stories, data, and lessons learned across teams and partners. Sustainability also means keeping family math visible and valued through consistent messaging, celebrations of success, leadership support, and opportunities to convene, collaborate, and inspire others (e.g., hosting conferences, sharing tools, or creating communities of practice). By planning for continuous improvement and future expansion, organizations ensure that family math becomes not just a project, but a lasting part of how they serve children and families.

**Ideas in Action:**
In a series of focus groups conducted by the Center for Family Math with school and district leaders involved in the **Institute for Educational Leadership's District Leaders Network on Family and Community Engagement**[33], school leaders indicated that sustainability remains one of the most persistent challenges for districts implementing family math initiatives. Although there is often early enthusiasm and strong initial momentum, too many promising efforts fade before they can take root. As one leader put it, "We get excited, but we don't give it enough time to see the results and to sustain it so future generations benefit." This cycle is fueled by common systemic barriers: frequent leadership turnover, budget and staffing constraints, and the absence of lasting structures to support the work. When principals or superintendents change, family engagement efforts often restart from scratch. Without dedicated funding or embedded expectations in school improvement plans, even strong programs can struggle to survive. Yet, there are promising paths forward. Districts that view family engagement, especially in math, not as an add-on but as a driver of school culture, are better positioned to sustain their efforts. Embedding family math into guiding documents, professional development, and community partnerships helps build a foundation that outlasts individual leaders. When family engagement becomes part of how a district defines success, it is more likely to be protected, prioritized, and scaled over time.

**The Julia Robinson Mathematics Festival**[34], founded in 2007 by Nancy Blachman, is a nonprofit organization that builds math confidence by engaging children and families in joyful, collaborative problem-solving experiences. It carries out this mission by bringing math festivals to communities. Their math festival has a variety of different activities, all focused on hands-on learning, student choice, and collaboration. It started off as a single event hosted by Google, but after its initial success, it quickly began a yearly tradition hosted by other sponsors such as Pixar Animation Studios. Since then, JRMF has expanded into a nationwide organization hosting events across several U.S. states with participants in the District of Columbia, one territory (Puerto Rico), and 19 foreign countries. Their continued growth shows how family math efforts can be sustained through ongoing support, strong partnerships, and a dedication to making math accessible and fun for all children. The festival's expansion has also been supported by a move from events hosted by big tech companies and universities to school-based programs. This shift to school-based programs has enabled greater scale.

**Reach Out and Read**[35] **(ROR)** is a national nonprofit organization that partners with medical providers to promote early learning by integrating books, shared reading, and family guidance into pediatric care. ROR demonstrates how family math efforts can be sustained through sufficient implementation support systems and strong partnerships. ROR works with medical providers to support early literacy by encouraging families to read with their children and providing free books during clinic visits. As the organization planned to expand its family math efforts, it recognized that successful scale-ups require a lot of planning and support. To prepare for the scale-up, its study team focused on partnering with program leaders and practitioners who worked directly with families and caregivers to understand how math could be infused into a pediatric visit. They observed practitioners working with caregivers in early math activities to ensure they understood the resources they needed. By prioritizing implementation strategies and having the clear tools accounted for, ROR was able to provide the resources needed to continue incorporating early math into their existing work. ROR has expanded its efforts and continues serving racially, linguistically, and economically marginalized communities.[11]

# Assess Yourself

## Sustain Family Math Efforts Through Funding, Continuous Improvement, and Expansion

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We use what we learn from both formative (process) and summative (impact) evaluation to refine our programming, share learnings with partners, and plan for sustainability. | 1 | 2 | 3 | 4 | 5 |
| We have a clear plan to sustain our family math work beyond initial pilot phases, including staffing, training, and ongoing implementation. | 1 | 2 | 3 | 4 | 5 |
| We have identified funding sources (e.g., grants, public funds, private donors) and in-kind resources that can support family math over time. | 1 | 2 | 3 | 4 | 5 |
| We embed family math into long-term strategies, such as staff onboarding, job descriptions, or professional development cycles. | 1 | 2 | 3 | 4 | 5 |
| We have systems in place to regularly collect and share stories, outcomes, and lessons learned from our family math work with staff, families, and partners. | 1 | 2 | 3 | 4 | 5 |
| We consistently communicate about family math through newsletters, social media, community events, or internal messaging to keep it visible and valued. | 1 | 2 | 3 | 4 | 5 |
| We invest in leadership and staff capacity by supporting family math champions, communities of practice, or peer learning groups. | 1 | 2 | 3 | 4 | 5 |
| We celebrate family math successes publicly (e.g., in staff meetings, community events, publications) to build motivation and momentum. | 1 | 2 | 3 | 4 | 5 |

# Assess Yourself

## Sustain Family Math Efforts Through Funding, Continuous Improvement, and Expansion

**(Continued)**

| | Not Yet | Emerging | Taking Shape | Established | Exemplary |
|---|---|---|---|---|---|
| We seek opportunities to connect and collaborate with other organizations doing family math work, including attending or hosting conferences, webinars, or learning exchanges. | 1 | 2 | 3 | 4 | 5 |
| We use feedback and data to refine and expand family math programming in response to changing family needs and community contexts. | 1 | 2 | 3 | 4 | 5 |
| We view sustainability as a shared responsibility across departments and roles, not the work of one person or team, ensuring family math is woven into the organization's culture and identity. | 1 | 2 | 3 | 4 | 5 |

## Case Studies By Domain (Appendix I)



**Reflect and Plan:**

*Get Up to Speed on Current Family Math Research and Practice:*


- PBS SoCal's Family Math 14
- The Early Math and Language Initiative (EMLI) 15


*Gather Input on Family Math Needs and Priorities:*


- Abriendo Puertas/Opening Doors 17


*Situate Family Math within Organizational Mission, Vision,, Current Programming and Funding*


- Tandem 19




**Connect and Build Capacity:**

*Build Staff and Leadership Capacity for Family Math:*


- School District of Philadelphia 23


*Build Parent Capacity and Leadership Potential for Family Math:*


- Family Math Parent Advisory Council (PAC) 25
- TERC 26


*Communicate and Raise Awareness About the Importance of Family Math:*


- EDC 29
- The New Jersey Family Engagement Hub 29




**Design, Implement, and Collaborate:**

*Co-Design Family Math Programming With Parents and Content Experts:*


- MathTalk 32


*Implement Family Math Programming:*


- PowerMyLearning 35
- Raising a Reader 35


*Activate Family Math Partnerships:*


- California Family Math Initiative (CFMI) 37




**Lead, Learn, and Sustain:**

*Conduct Formative and Summative Evaluation:*


- Parent Institute for Quality Education (PIQE) 42


*Develop Policies to Support Family Math Practices:*


- Just Equations 44
- Ohio Statewide Family Engagement Center 45


*Sustain Family Math Efforts Through Funding, Continuous Improvement, and Expansion:*


- District Leaders Focus Groups 48
- Julia Robinson Mathematics Festival 49
- Reach Out and Read (ROR) 49

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