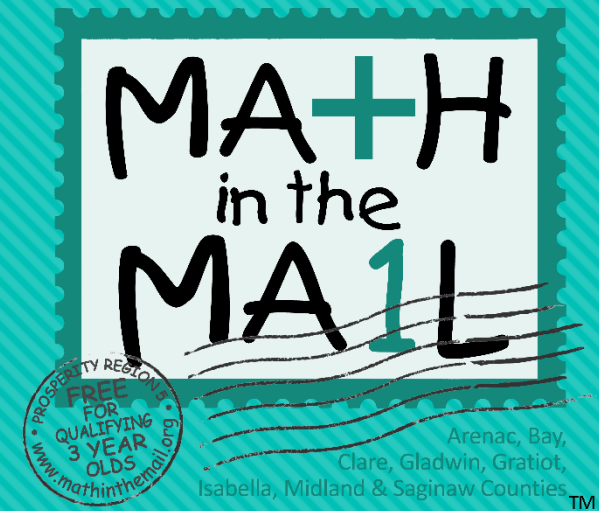


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Math in the Mail

Math in the Mail is a collaboration between these Great Lakes Bay Region leaders in education:



Shaping the Future
Through Education
**Gratiot
Isabella
RESD**

MIDLAND COUNTY



Math in the Mail is funded by
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Activity



Each time you recognize a collaborative relationship, add another link...

What is Math in the Mail?



The Math in the Mail program focuses on developing mathematical skills in three-year-olds, by providing the tools needed in the home environment for parents, guardians, and other caregivers to engage with children in math play.

Enrolled children receive 6 kits over the course of the year before they enter 4 year old preschool.



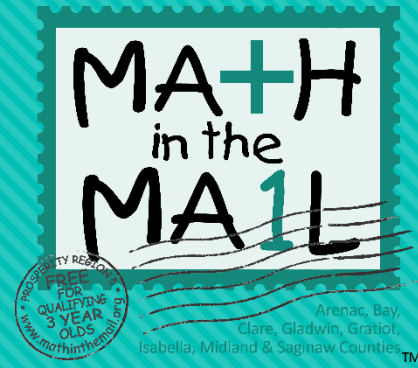
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Math in the Mail is currently funded by the Dow Corning Foundation.



Collaboration is the Foundation



Math in the Mail is a collaboration between

- the 8 counties of Michigan's Great Lakes Bay Region
- the 5 intermediate school districts (ISDs) serving those counties
- the Instructional Services & Early Childhood departments of each ISD

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RESD**



Collaboration is the Foundation



The **Advisory Committee** serves to provide guidance on the vision and execution of the Math in the Mail program.

Representatives of

- Instructional Services & Early Childhood Education departments
- Head Start agencies
- ISD/RESO Superintendent, from each of the eight counties served
- Saginaw Valley State University
- Central Michigan University



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Qualifying for Math in the Mail



Families must

- Live in Arenac, Bay, Clare, Gladwin, Gratiot, Isabella, Midland or Saginaw county (in Michigan)
- Have a three year old child in the household (Children born 9/1/15 – 9/1/16 can be enrolled this year*).
- Have a household income that is at or below 250% of the federal poverty guidelines (approx. \$64,375 for a household of four)



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**This aligns the cohort with the age group eligible to enter 4 year old Head Start preschool and/or GSRP in September 2019.*

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Collaborating on Enrollment



We receive Head Start enrollment information from



- EightCap
- Mid Michigan Community Action Agency
- Northeast Michigan Community Service Agency
- Saginaw ISD



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New Challenge = New Collaboration



Over 50 children had their kits returned by the post office in Year 1, most of whom were enrolled through Head Start.

In Year 2 we piloted an idea with SISD Head Start to distribute the kits to the Head Start sites.

When families attend the Parent Club meetings, they receive their kit. If they do not attend the meeting, the kit is sent home with the child in a backpack.

This allows more kits to reach more children in this transient population.

BONUS: The backpacks cost about \$1 each, so we save approximately \$3-\$5 on postage for each kit delivered this way.

The backpack also becomes advertising for the program if it is used outside the home.



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New Challenge = New Collaboration



18 kits returned in Year 2 vs. 115 in Year 1, thanks to delivering SISD Head Start kits



This has since been replicated with the other Head Start agencies, so over 750 kits are delivered to Head Start sites after each new kit design is assembled!

What if a Family Doesn't Qualify?



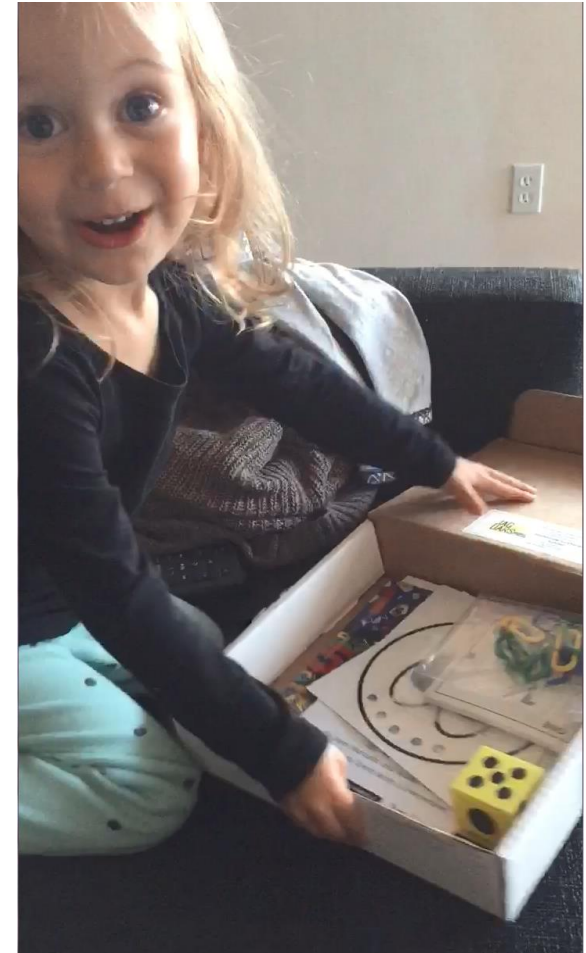
Due to a significant number of early enrollments not meeting the income eligibility guidelines (over income), it was decided to begin offering Math in the Mail by subscription as well.

It is currently being offered:

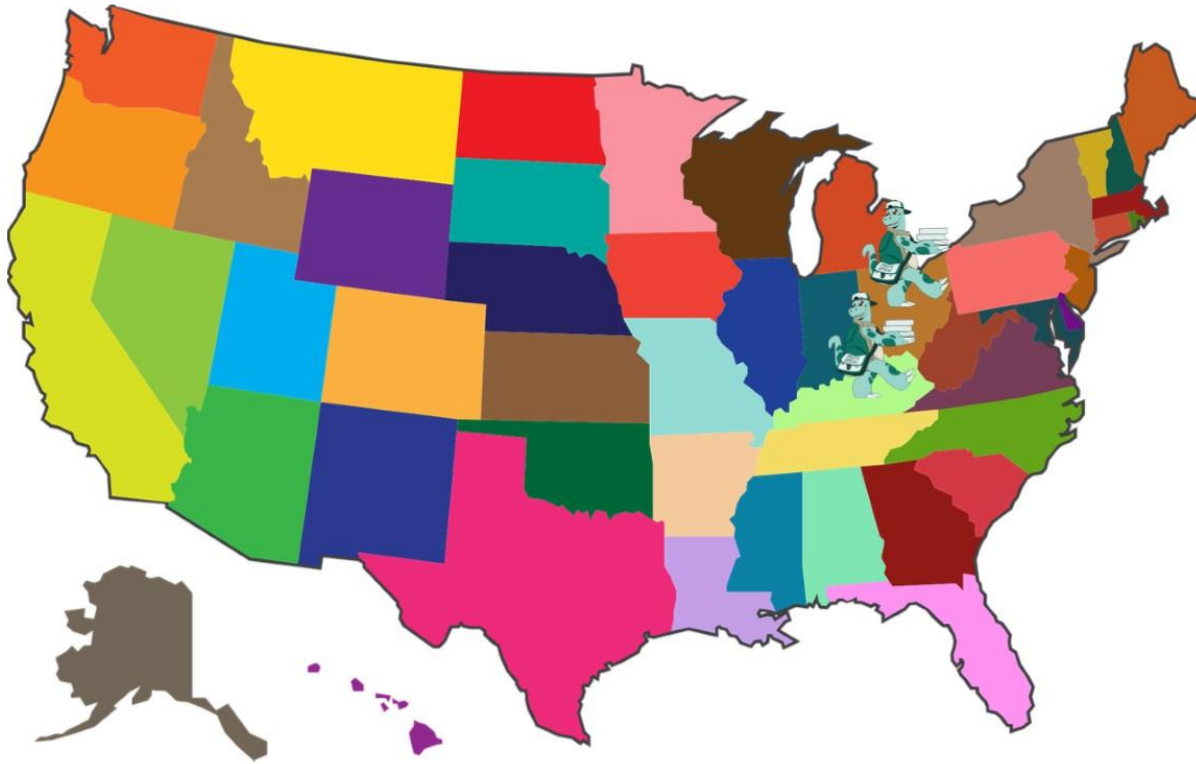
3 kits = \$60 (over six months)

6 kits = \$110 (over twelve months)

This pricing covers the per kit cost with a marginal additional revenue for the program.



Expanding: Subscriptions for Organizations



We have created a “menu” of options for those entities interested in bringing Math in the Mail to their community.

Each situation will need to be personalized to meet the needs of the community being served and the organization leading the initiative.

Two organizations outside our state have already subscribed for the families they serve!

What if a Family Doesn't Qualify?

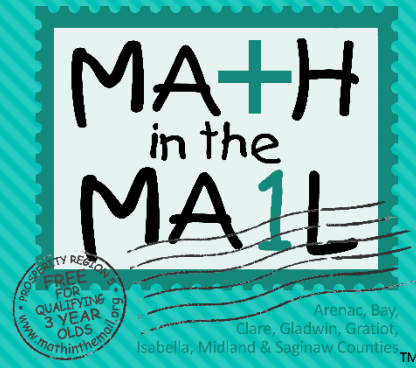


A STEM Equity and Access mini grant awarded by the Great Lakes Bay Regional Foundation in collaboration with the Great Lakes Bay Region STEM Ecosystem allows us to provide kits to families who may not have a stable address.



The Great Start Collaborative of Saginaw County, Saginaw ISD, The City Rescue Mission of Saginaw, and the East Side Soup Kitchen collaborated on this project.

Design



Kits must include

- Materials designed for hands-on play
- A developmentally appropriate book with a math focus
- 'Tools for Talking', a guide on how to use the materials provided
 - Ideas for interactive activities using the provided materials
 - A description of how these activities help children learn
 - Accessible language and vocabulary for families



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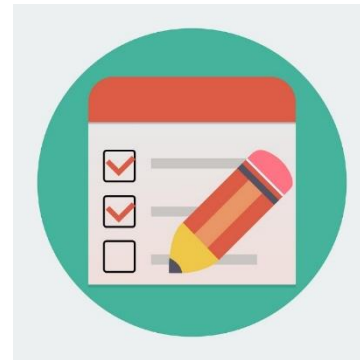
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Design Challenges



Kit components must...

- Be developmentally appropriate for 3 year olds
- Be engaging
- Be culturally relevant and respectful
- Support school readiness
- Have built in supports for children
 - with special needs
 - who are English-language learners
 - who are advanced learners



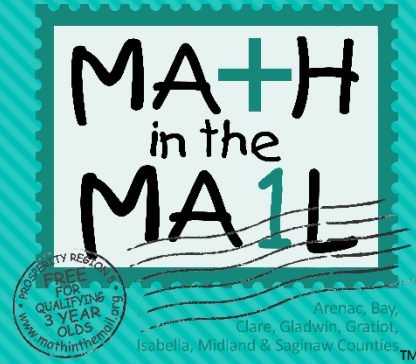
- Contain materials that are
 - Lightweight (to reduce shipping costs)
 - Inexpensive
 - Safe for 3- and 4 - year - olds
- Align with/address
 - math objectives from the TS Gold Assessment for 4 year olds
 - Michigan Department Education Early Childhood Standards for Quality

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Collaboration Creates Quality

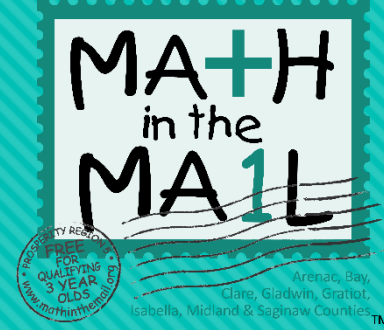


Collaboration Efforts

- A **Content Quality Committee** comprised of leaders from each of the eight counties served in
 - Early Childhood Education
 - Mathematics education
 - Key community partners and stakeholders
- Work with students to design kits

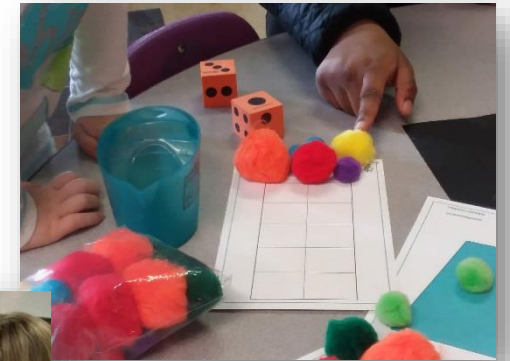


Students Collaborating on Kit Designs



The Careers in Education class has designed

- *Sorting at the Market* kit
- *A Mousy Mess* kit
- *Albert's Bigger Than Big Idea* kit

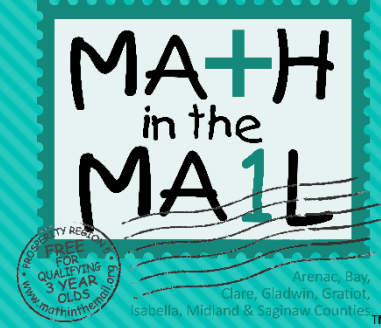


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Students Collaborating on Kit Designs



Two kits designed by Girl Scouts for their Silver Project



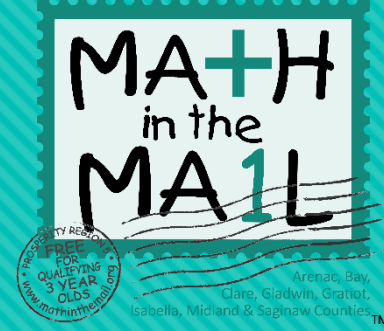
- Researched books & manipulatives
- Wrote Tools for Talking
- Piloted kit designs
- Presented to the CQC

Math in the Mail is a collaboration between these Great Lakes Bay Region leaders in education:



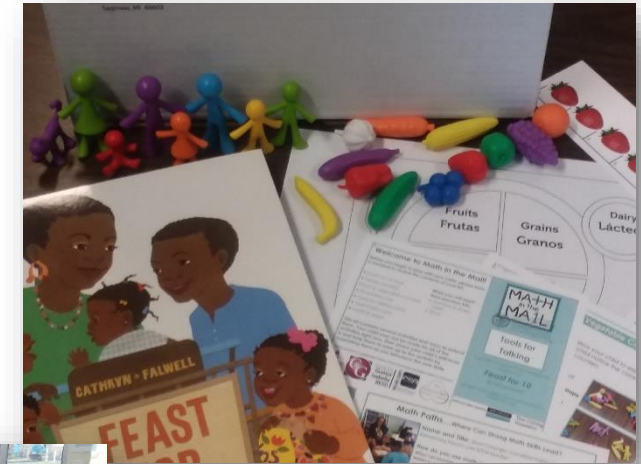
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Students Collaborating on Kit Designs



The 4th & 5th grade Honors classes at Carrollton Elementary School designed the *Feast for 10* kit

- Used the book & manipulatives to create the activities for the kit
- Recorded videos to promote the program and demonstrate the activities
- Piloted kit designs with 3 year olds
- Assembled kits

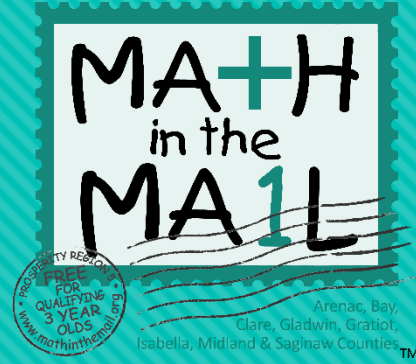


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Collaboration Creates Quality



Collaboration Efforts

- **Community Partners** invited to add
 - Resources
 - Coupons
 - Information
 - Activities
 - Many community partners have been cultivated via the Great Lakes Bay Region STEM Ecosystem.

BONUS: This has created advocates for Math in the Mail in the community (just check out our introduction video, where many community partners are featured)!



Collaboration Creates Quality



Kit designs are piloted in 3 year old preschool classrooms in the region to determine the engagement level of the components and activities.

Assembly



- Partner with work based learning programs to help prepare components for assembly.
- Invite community members to help assemble kits!
 - Acknowledge their efforts with stickers in the kits that act as “advertising” for their organization.



Collaboration Produces



Over 30 different organizations have been represented by assembly volunteers!



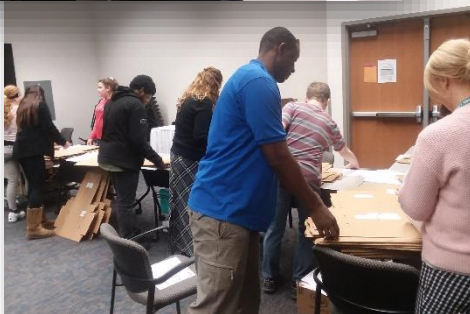
STEM AmeriCorps Program
(Science Technology Engineering and Math)



Czechoslovak
Society of
America
Lodge #411



Collaboration Produces





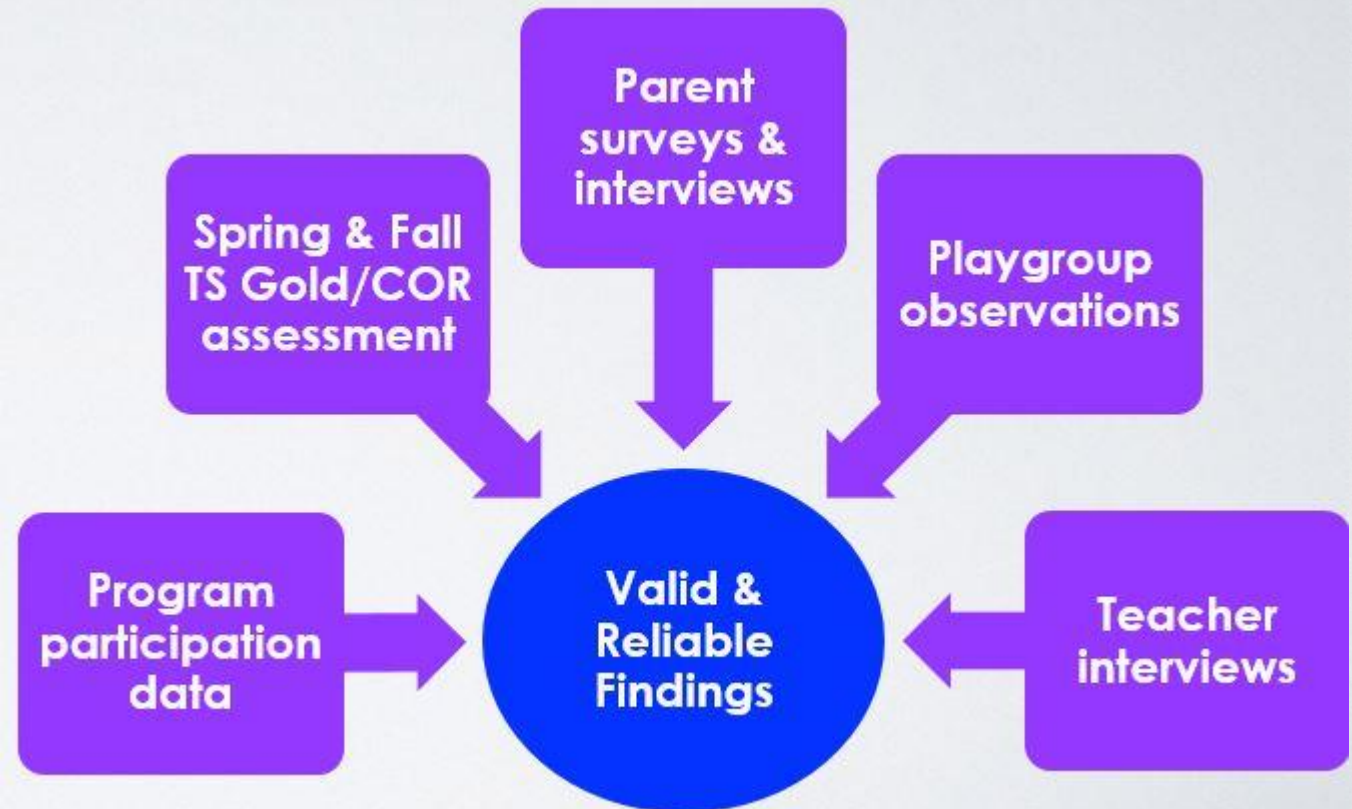
Wendy Tackett, Ph.D.
www.ieval.net



Evaluation Charge



Determine to what extent participation in Math in the Mail improved mathematics foundation learning in three-year-old children as measured by TS Gold/COR assessments at the beginning of their four-year old preschool experience.

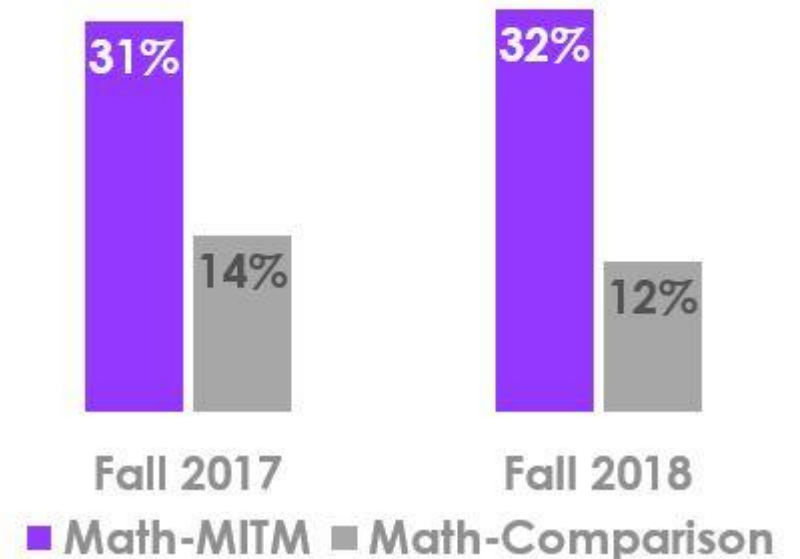


Key Finding – Repeated Impact

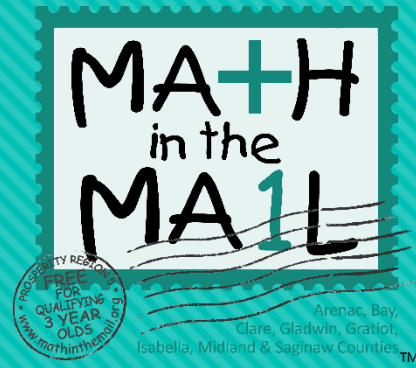


Both cohorts of participants performed **significantly better** than their peers on TS Gold.

TS Gold: Percent of PreK Students Meeting or Exceeding Minimum Expectations

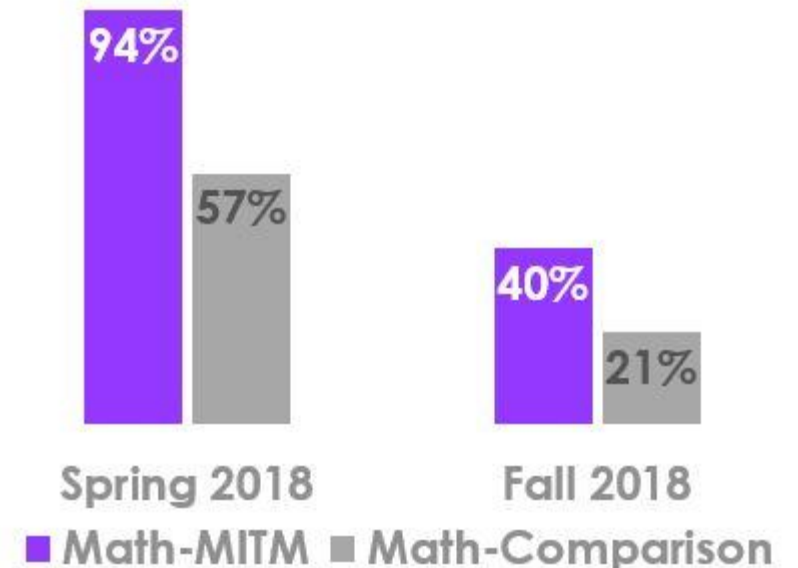


Key Finding – Continued Impact

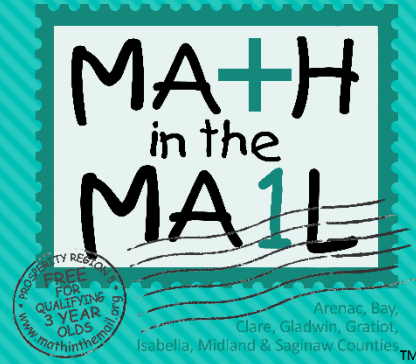


Participants were meeting or exceeding minimum expectations at **higher rates** than their peer group.

TS Gold: Percent of Same Cohort of Students Meeting or Exceeding Minimum Expectations



Key Findings – Parent Feedback



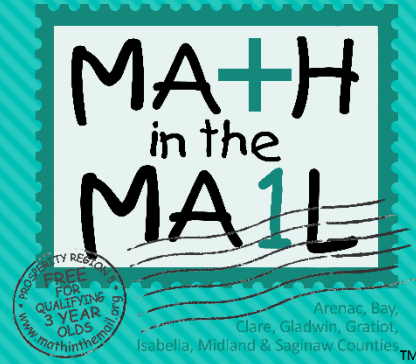
Math skill	Students with skill on pre-survey	% of students who improved on post-survey
Verbal counting in general	100%	76%
Verbal counting to 10	91%	59%
Counting up to five objects accurately, using one number name for each object	82%	56%
Understanding the concept of one, two, and more	100%	65%
Recognizing and naming numbers	58%	68%

Key Findings – Preliminary Impact



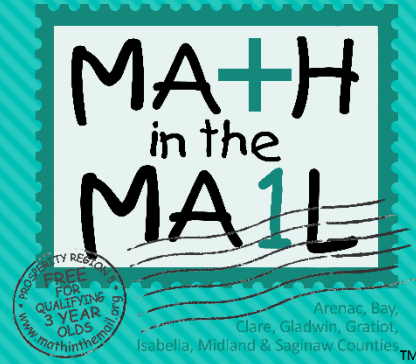
- Student engagement with the kits was high
- Parents did not regularly use or follow the instructions
- The books are the least used item by children in the kit
- Other children in the household also benefit from playing with the kits

Recommendations



- Uniform data
- Discontinue use of parent surveys
- Revise the kit directions (e.g., more succinct, more visual, easier to find)
- Provide teachers access

Questions



If you have any questions about the evaluation,
please feel free to contact:

Wendy L. Tackett, Ph.D.

wendy@ieval.net

www.ieval.net



Families Engaged in Feedback



Math in the Mail metrics evaluate both

- the increase in a child's math skills
 - Analyzing TS Gold math assessment scores (iEval)
 - Talking to the child's preschool teacher(s)
 - Parent report
- the confidence of the parent and child's math skills



A (self-reporting) assessment has been developed to gauge parent and child confidence in math skills.

100% of those who responded after receiving their 6th kit in Year 1 chose option 1!



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Families Engaged in Feedback



"I loved the different activities and how it guided you through them."

"It helps me talk and ask questions that I might not think of. Keeps the focus on simple things-age appropriate for my kid."

"It's given my son a different learning approach to talk to other people."

"It's helpful to have some instruction. It gave me ideas I hadn't/wouldn't have thought of."

"I like that there were varying options for different children's skill sets... it was nice to have a range of activities."

"Learning new ways to talk to my child about numbers."

"How easy it is and the bonding time."

"Honestly, I tutor adults for college courses in accounting, so this booklet helped me understand a little better on what to expect from her and how to make it more fun and interesting. It gave me extra ideas on activities to do with her. "

"Very easy to follow and very helpful when working with the kit."

"It takes the guesswork out."

"It's a great tool for parents who get stuck when it comes to engaging their children or aren't quite sure how to explain, ask, show them what to do."

"Makes learning fun and simple."

"It helps guide me so I know how to help him learn and get the most out of the kit."

"Easy to follow for both of us. No frustration on her end."

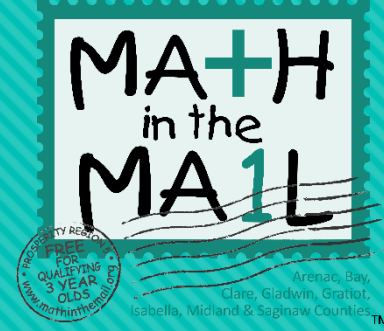
Activity



...now take your collaboration chain and “link up” with one or two others (preferably people you have not met yet).

- Briefly discuss ways you have met a challenge with a community collaboration
- OR
- Share a challenge you are struggling with and brainstorm ways to collaborate to meet that challenge

Please like, follow and share!



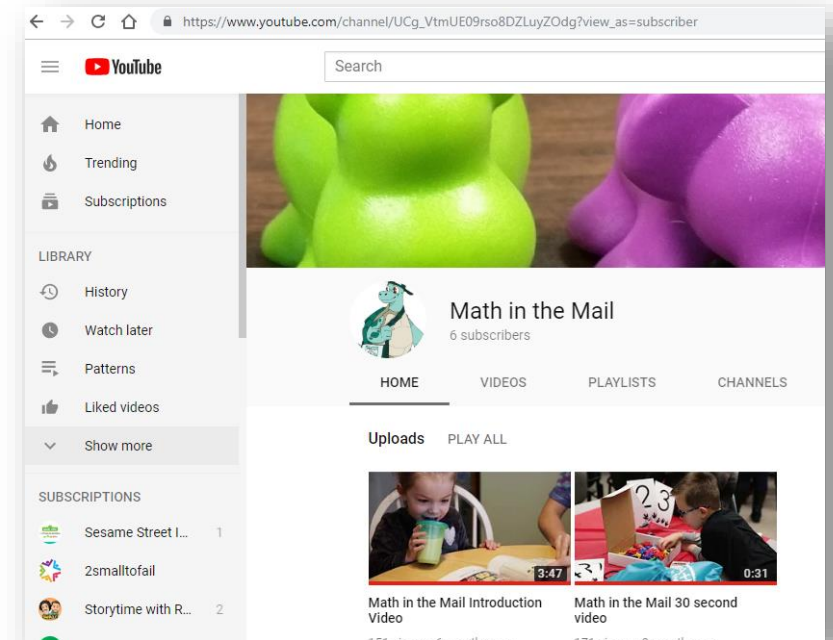
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Fun school readiness

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play skills

shapes

Exploring Numbers

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caregivers

Patterns

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Measuring

learn at home

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1

build

Sorting tools

subitizing

Comparing

three year olds

2

problem solving

3

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FOR QUALIFYING 3 YEAR OLDS

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