

VISION for SUCCESS



Louisiana's Math Refresh
Accelerating Math Learning
for Every Student

October 6, 2022

Agenda

- I. Announcing Louisiana's Math Refresh
- II. The Case for Learning Acceleration
 - i. Data and findings from new national study
 - ii. Learning acceleration in practice
 - iii. Supporting learning acceleration
- III. Next Steps for Systems



Each child's educational journey is focused on **SIX CRITICAL GOALS**.

BIRTH through GRADUATION



Students enter kindergarten ready.

Students will achieve mastery on third-grade assessments and enter fourth grade prepared for grade-level content.

Students will achieve mastery on eighth-grade assessments and enter ninth grade prepared for grade-level content.

Students will graduate on time.

Students will graduate with a college and/or career credential.

Students will graduate eligible for a TOPS award.



We know **several key things that must** be true to position students for success along the educational journey.



Access to a high-quality **early childhood experience**

Foundational **literacy instruction**

A **teacher** prepared to lead a classroom every single day

Daily instruction that **accelerates learning**

A meaningful **high school experience**



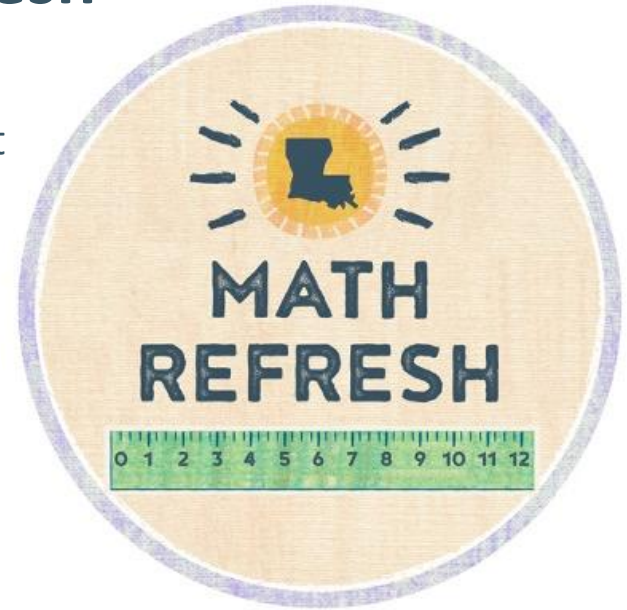


Louisiana's Math Refresh

Louisiana's Math Refresh

To support all schools in accelerating math learning, the **Louisiana Math Refresh** will provide strategically focused support to teachers and school and system leaders in two key areas:

- funding to support a **refresh of math materials** to ensure resources used during any instructional time are of the same high level of quality as core instruction
- explicit guidance, resources, and professional learning to support a **refresh of existing instructional practices** to align with evidence-based approaches for maximum impact in accelerating students' math progress



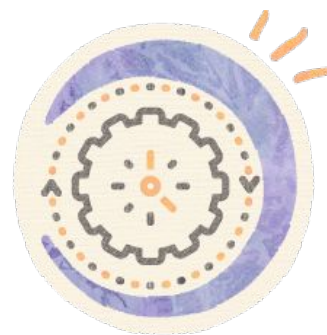
Accelerating Math Learning



Teachers have access to **high-impact structures and systems** to support their growth.



Teachers have access to **high-quality, aligned resources**.



Teachers are prepared to lead **highly-effective instruction in positive, inclusive environments** every day.



Accelerating Math Learning

more of this...	less of this...
<ul style="list-style-type: none">● emphasis on <i>forward movement</i>; unfinished math learning is systematically addressed just in time for new concepts● ensuring all students, including students with disabilities and English Learners, have daily access to high-quality, grade level learning alongside peers● math instruction across settings (e.g. tutoring, extended learning time) is connected to core instruction and of the same standard of quality, prioritizing individualized supports that ensure readiness to engage in grade level work	<ul style="list-style-type: none">● emphasis on <i>backward movement</i>, reteaching every “missing” skill or concept in isolation from grade level work● structuring extended learning time and interventions so that students miss sacred core ELA, math, science, or social studies instruction● instructional and intervention time is passive and isolated from core (e.g. focused on worksheets or computer-based fluency drills), and/or students are engaging with work that is better suited for earlier grades



Louisiana's Math Pillars



school structures prioritize **all students'** successful engagement in **high-quality, grade-level core math instruction** alongside peers



timely, proactive interventions connecting prerequisite learning to upcoming and current grade-level work



ongoing **professional learning and proactive planning** are essential for effective teaching and accelerating



families, caregivers and communities play an essential role at all ages and stages



Louisiana Math Refresh: Support Overview

Key Event	Timeline
<p><u>Math Refresh Library</u></p>	<p>resources added on a rolling basis</p>
<p>Math Refresh funding opportunity guidance and resources released with 2023-24 School System Planning</p>	<p>October 2022- February 2023</p>
<p>statewide Zearn access for grades K-8 with aligned professional learning (PL) support</p>	<p>fall 2022: PL offerings begin January 2023: school account access</p>
<p><u>Eureka Math² Algebra I Pilot Opportunity</u> with aligned professional learning (PL) support</p>	<p>fall 2022: PL offerings begin January 2023: pilot window begins and funding available for selected systems</p>
<p>LDOE professional learning and individualized assistance</p>	<p>ongoing</p>





The Case for Learning Acceleration



Catching up *and* moving forward: Accelerating math learning for each student

Across the nation, while many people have returned to their normal routines, the impact of the COVID-19 pandemic on math learning persists. After enduring more than two years of pandemic disruptions, each student's learning has been affected differently. Teachers need practical ways to help kids catch-up and move forward in math. As a nonprofit educational organization with the largest dataset on student math learning in the nation, Zearn is in a unique position to investigate this further.

When the 2020-2021 school year began, teachers had a tough decision to make, and one that needed to work for most of their students. They could either go back and redo the month(s) of disrupted work (a remediation approach) or move forward with the next grade's work with some built-in review (a learning acceleration approach). In partnership with TNTP, Zearn's researchers investigated the impact of these classroom-wide decisions in fall of 2020. Researchers found that classes that followed a learning acceleration approach struggled less and learned more than those that took a remediation approach.

Today, however, teachers are contending with more than two years of varied learning disruptions. Thus, they know each student will need ongoing and wide-ranging support throughout the year. Knowing that, what strategies will most effectively catch-up students each time they struggle in math?

A new, landmark study powered by two years of math learning data offers statistically significant evidence that learning acceleration definitively works at scale.

The study looked at the same student, multiple times over the course of two years. Based on the instructional decision (learning acceleration or remediation), researchers determined how likely a student was to struggle on the next grade-level lesson.

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Catching up and moving forward | 103

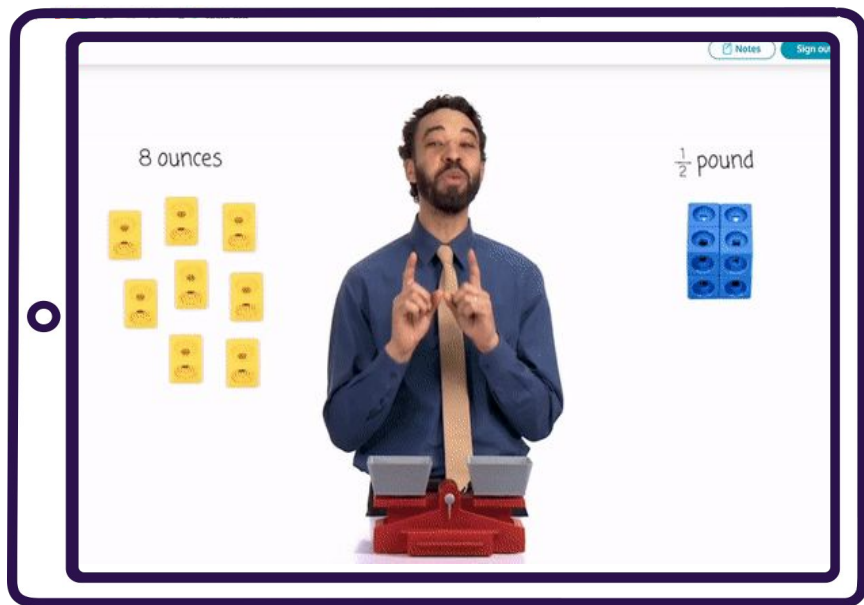


Data and findings from new national study

Learning acceleration in practice

Supporting learning acceleration





About Zearn:

501(c)3 nonprofit organization

Materials for students to explore grade-level math concepts with built-in differentiated support

Largest dataset on student learning





What strategies help **all students**
catch up and move forward in math?

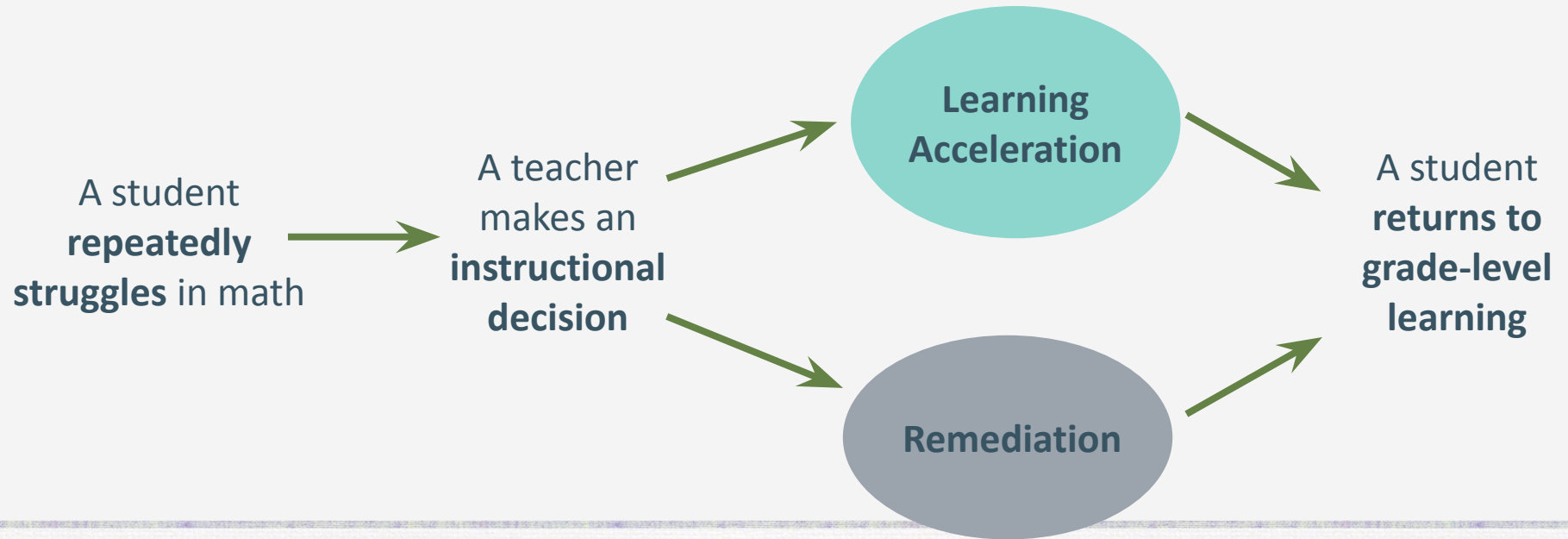


Promising evidence that learning acceleration works—at scale

- Two years of math learning data
- 600,000 elementary and middle school students (1st - 7th grade) across 50 states
- 5 million instructional choices

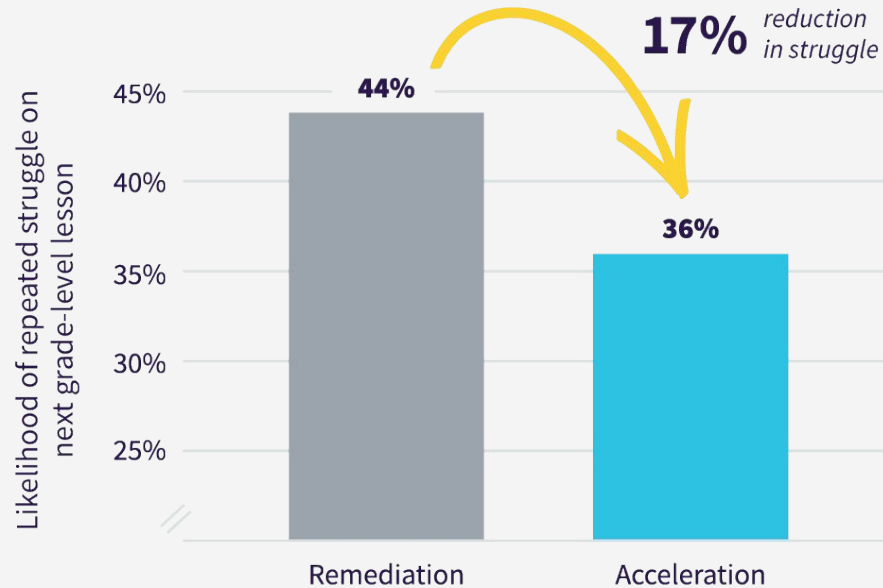


New research **compares the same group of students** looking at what happened when they were accelerated and remediated



FINDING 1

A student **struggled 17% less in math** and **completed 2X as many grade level lessons** when they experienced learning acceleration



When students were consistently accelerated, they completed:

2x

more grade-level lessons

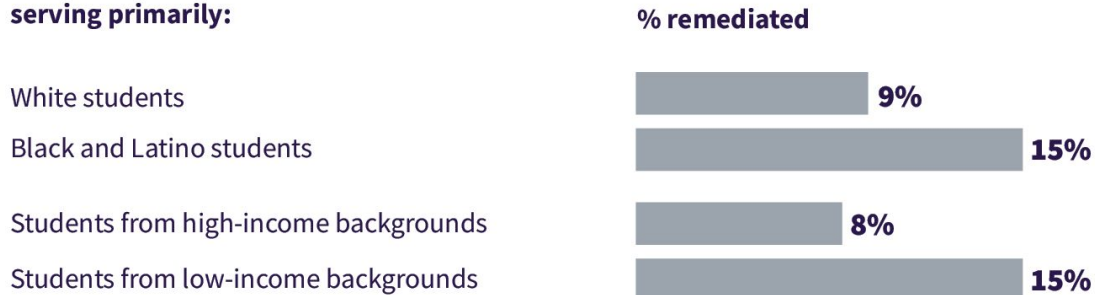


FINDING 2

A student enrolled in a majority Black, Latino or low-income school was more likely to be remediated when compared with their white and high-income peers—even when they already demonstrated the same level of success with grade-level work.

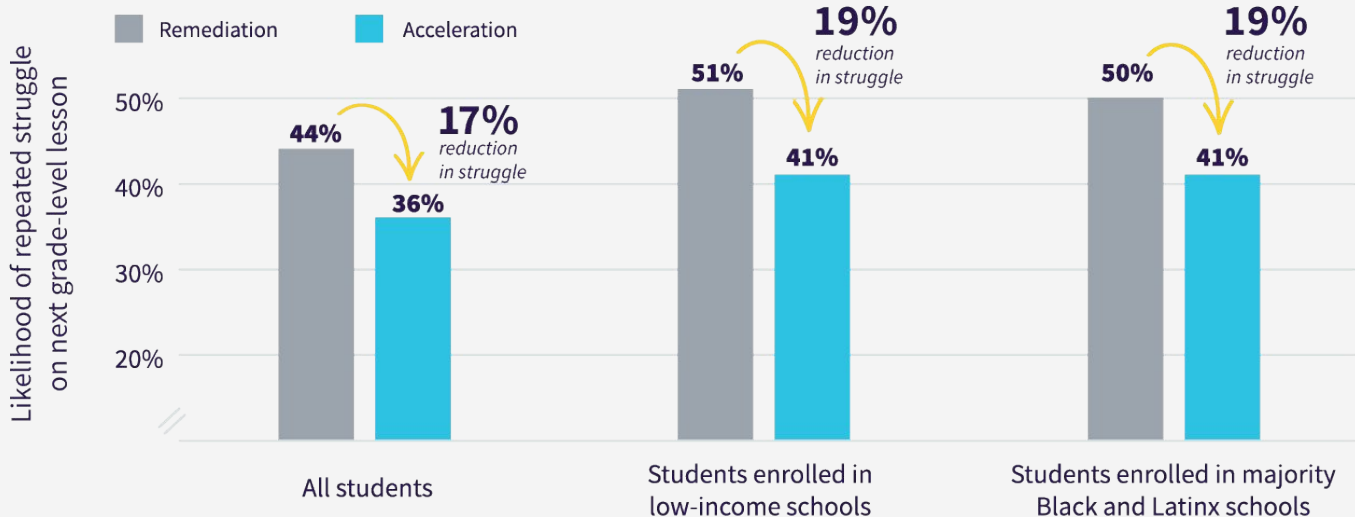
Percent of students demonstrating success with grade-level content who are assigned remediation content in response to struggle, by student subgroup

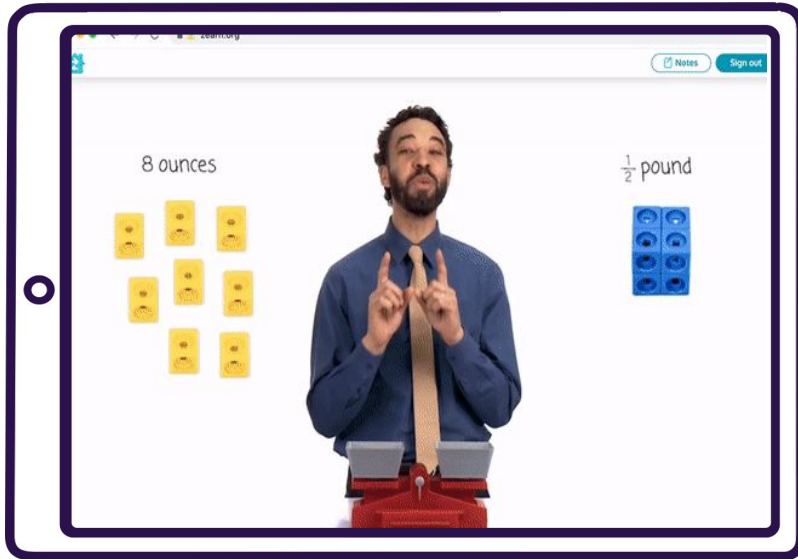
Students enrolled in schools serving primarily:



FINDING 3

A student enrolled in a majority Black, Latino or low-income schools **struggled 19% less in math** when they experienced learning acceleration





Scaffolds to grade-level learning

Just-in-time support on connected foundational concepts



$$2 \div 1/2 = ?$$





How does acceleration impact student
outcomes?



FIGURE 1

Students at the lowest levels of proficiency exceeded growth benchmarks, growing more than 2 grade levels in 2 years.

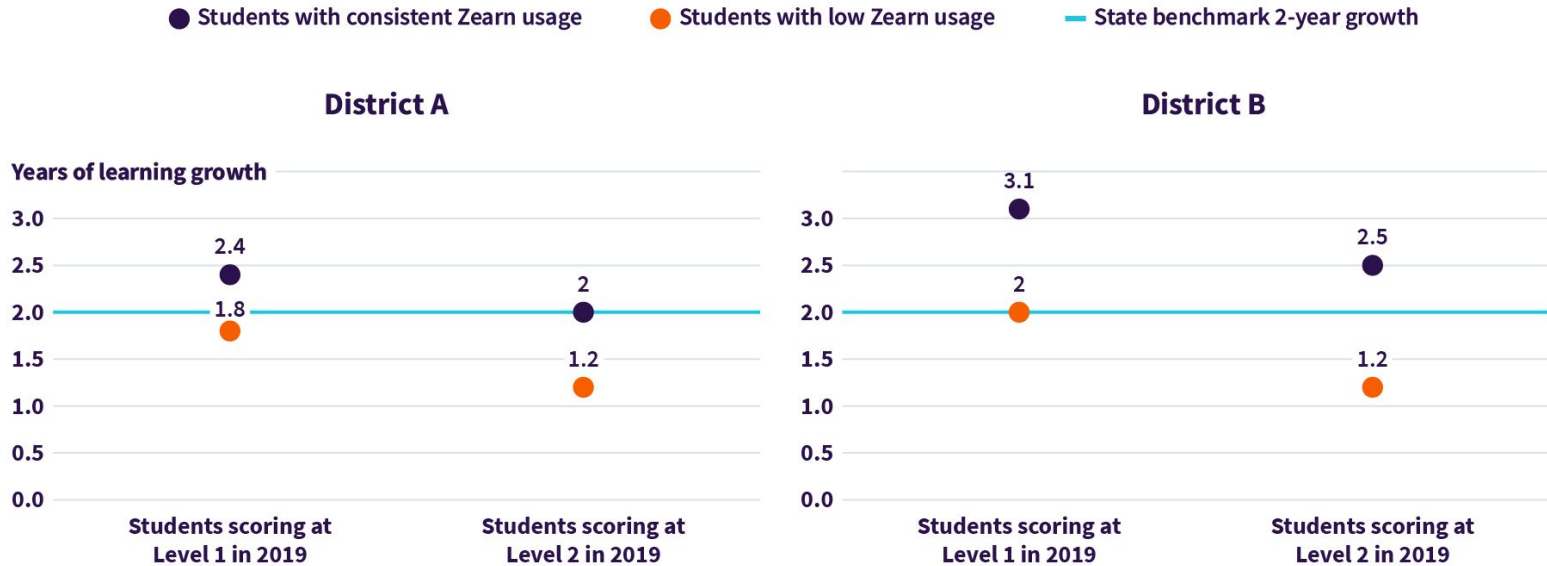
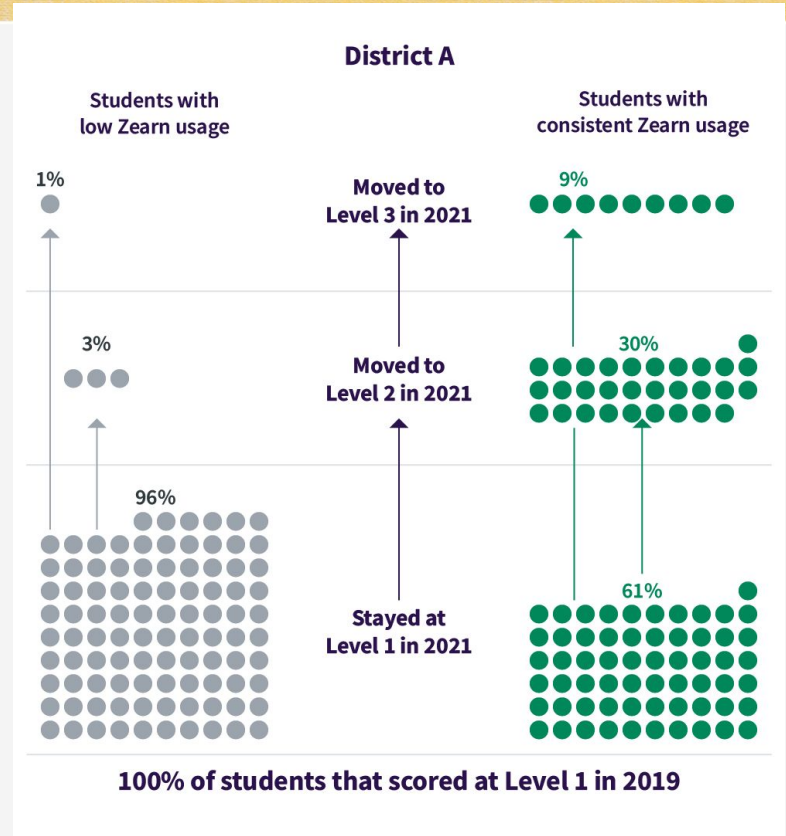


FIGURE 2

Almost **40%** of students at the lowest level of proficiency who used Zearn moved up a **full level or more** on state assessments.





Next Steps for School Systems

Math Refresh Library

All resources to support [Louisiana's Math Refresh](#) will be available through the Math Refresh Library. The library will host planning resources, guidance on best practices, and professional learning information.



Statewide Zearn Access for Louisiana Schools K-8

The Department has partnered with Zearn to provide school accounts to all public schools serving grades K-8. This opportunity will support systems' efforts to accelerate math learning and will include the following:

- **high-quality, evidence-based resources**, which can be used as core materials or alongside other high-quality materials for use within class as well as extended learning time (e.g. tutoring, as part of a summer learning program)
- virtual and in-person options for **aligned professional learning** for teachers and leaders to ensure successful implementation



Special Eureka Math² Pilot Opportunity for Algebra I

The Department is inviting systems to apply to pilot of Eureka Math² Algebra I in high school classrooms. Acceptance to the pilot includes funding for the purchase of resources and professional learning.

Key Event	Timeline
Algebra I pilot applications open	October 6
Algebra I pilot applications due	October 18
participating systems are notified	Early November
allocations sent to BESE for approval	December 13 & 14
funding available to awardees in EGMS	January 2023

Consult the [Eureka Math² Algebra I Pilot Overview](#) for details and eligibility requirements.



Math Refresh Launch Webinars for Educators

Webinar	Registration link
Learning Acceleration for Math Grades K-2	<u>November 1 at 4 p.m.</u>
Learning Acceleration for Math Grades 3-5	<u>November 2 at 4 p.m.</u>
Learning Acceleration for Math Grades 6-8	<u>November 3 at 4 p.m.</u>



Contact Information

Please contact STEM@la.gov with any questions or to request an individualized call to support your implementation planning efforts.

