



THIRD SPACE
LEARNING

Combating Summer Learning Loss

A guide for school leaders on why it takes place and how to minimize its effects on students' math ability before, during, and after the summer

School and District Leader Guides

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Introduction

What is Summer Learning Loss (SLL)?

Summer slide, brain drain, summer learning loss — whatever you might call it, it's a problem faced by teachers every fall. **Summer learning loss (SLL)** is the very real decline in a child's academic skills that occurs during the summer vacation when school is not in session.



According to a study by the American Educational Research Association, kids lose up to **40% of the gains** they have made over the school year while on summer break.¹

American Educational Research Association

Which students and subjects does SLL affect most?

- ✓ Upper elementary
- ✓ Math
- ✓ Students from lower income families

While SLL occurs at every grade level, it is most likely to affect upper elementary when kids are learning a lot of new concepts for the very first time.

It's also most likely to affect kids' math skills over other subjects.



The Harvard Graduate School of Education reports that on average, **students lose approximately 2.6 months of learning in math over the summer** — and teachers have to give up weeks of class time, or more, to make up for that loss.²

American Educational Research Association

Studies strongly suggest that those from **lower income families** are more likely to be affected and often need extra support. This is particularly true in the **aftermath of the COVID-19 pandemic**, when gaps in learning widened despite schools' best efforts to extend support to kids at home.

Math SLL is normal and there are plenty of ways to combat it, from encouraging memory-building before the break, to activities designed to kickstart growth at the start of the year. However, research shows that a well designed summer tutoring program is one of the most effective, and evidenced ways to close this achievement gap.



In an independent trial, students receiving regular Third Space Learning tutoring achieved **7 months of math growth in 14 sessions**. Read on for all you need to know about overcoming summer learning loss in your district or school.



Why does SLL affect kids' math skills?

Routine	Practice	Memory
Unstructured routine For most kids, the summer vacation is largely unstructured time and a far cry from the regular routine provided by the school day.	Fewer math focused activities Without regular math practice over the summer, students lack the consistent reinforcement needed to keep key concepts fresh.	Reliance on short-term memory We all know that a student correctly answering a math question today is no guarantee that they'll be able to do it tomorrow.
Fewer mathematical habits Having fewer opportunities to engage with mathematical thinking, they get out of the habit of using their 'learning' brains, meaning that they're slower off the mark in the fall semester.	Hard to incorporate into daily life Skills like literacy might be incorporated into fun family activities such as bedtime stories, or a summer reading program organized by a library, while an interest in science or history can be satisfied by a trip to a museum. By contrast, there is a limited availability of math practice outside of formal school settings.	No opportunity for memory retrieval In fact, though a concept might make it into their long-term memories, without regular use during the summer break, there will be poor or no memory retrieval come fall. To retain the knowledge and use it flexibly, they need to access the memory regularly in different contexts, such as during a tutoring session.

Why is math SLL a problem?

Imagine the teachers at your school have set up their lesson plans for the fall. They've identified how to build on the key concepts that the kids learned last year. And yet, when the kids return to the classroom, they're adamant that **they don't remember having those classes** in the spring semester.

SLL increases the amount of time that teachers have to spend re-teaching last year's content. This also means that no new learning can take place until the old knowledge gaps have been filled in. The National Summer Learning Association estimates that **it takes teachers at least three weeks working** to re-teach lessons from the previous academic year.

Not only is precious teacher time wasted, it delays the math progress of the students in question — and it adds up, year on year. By the time students reach fifth grade, they could have already lost **18 months of learning due to summer learning loss**. This in turn increases their likelihood of falling behind their peers or being held back a grade.



In the most recent National Assessment of Educational Progress, often referred to as the nation's report card, the picture was mixed: reading scores declined in both 4th and 8th Grade, while 4th Grade Math actually improved slightly. Even with that gain, only 39% of 4th Grade students reached the NAEP Proficient standard in Math in 2024 – which means around three fifths of 4th Grade students are still falling short of that benchmark.³

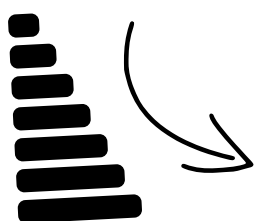
National Assessment of Educational Progress

How to embed metacognition across your school



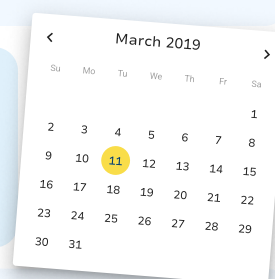
According to the National Summer Learning Association, the summer vacation presents specific challenges to kids from disadvantaged backgrounds. Their studies indicate that summer programs are the best way to combat their learning loss.⁴

National Assessment of Educational Progress



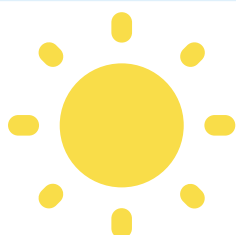
The “**summer slide**” is what often happens to disadvantaged children during the summer months. They tread water at best or even fall behind, while higher-income children build their skills steadily over the summer months

Elementary school students with high levels of attendance (at least five weeks) in voluntary **summer learning programs** experience benefits in math and reading.



High-quality summer programs improve **math and reading skills**, and also build critical social and emotional skills of students. These are skills that will help them not only in school but also in their careers and life.

More than half of U.S. students experience summer learning losses **five years in a row**. These students on average lose nearly 40 percent of their school year gains.⁴



Research shows that **high-quality summer programs** can make a difference in stemming learning loss and closing the country's educational and opportunity gaps.

9 in 10 teachers spend at least three weeks re-teaching lessons at the start of the school year.



How you can prevent math SLL

Before the summer break

✓ **Think outside the box**

For example, a project where students have to design a room in the school

✓ **Apply learning to the real world**

Encourage students to make a dish for their family and write out recipe ratios

✓ **Take class outside!**

Stealth learning will encourage long term math memory

During the summer break

Teachers can encourage parents to embed math learning into recreational activities during the holidays:

✓ **Think outside the box**

For example, a project where students have to design a room in the school

✓ **Apply learning to the real world**

Encourage students to make a dish for their family and write out recipe ratios

✓ **Take class outside!**

Stealth learning will encourage long term math memory

Though activities like those above can help to keep a child's learning memory active, research shows that a **well-designed summer tutoring program is one of the most effective, and evidenced ways to close this achievement gap.**

“The key to strong semantic memories is lots and lots of thinking hard, practicing and revisiting concepts and then finally, applying them in other contexts, like outdoors.”



Clare Sealy
Former school leader





At Third Space Learning, we specialize in math tutoring for schools. We know that the summer vacation presents a challenge to teachers, so we offer a **differentiated summer tutoring program for 3rd-8th grade students**. We've helped over 4,200 schools since 2013 to accelerate learning growth. Across 4-6 weeks, AI tutor Skye can support your students who are at risk of not meeting their age-related expectations, and help **boost progress and confidence in math**. For free elementary math resources developed by math teachers, and more information on our summer tutoring program, visit:

www.thirdspacelearning.com/us/5

Why summer tutoring works

- ✓ Time to catch up on any content missed or not grasped
- ✓ Consolidate knowledge and fill in any gaps
- ✓ Maintain good study habits and routine over the break
- ✓ Return to school in the fall prepared and confident

"This will really help me so much! I'm getting more and more confident for my assessments every time I do these sessions! Thank you!"



Tina,
Third Space Learning student, age 11



After the summer break

- ✓ **Memory recall:** Math memory can be easily recalled by careful memory-jogging through targeted activities



Read: [16 Fun Back To School Math Activities To Beat The Summer Learning Loss⁶](#)

7 min read

- ✓ **Study support time:** Schools can provide study support to ease students back into school, giving students from disadvantaged backgrounds a safe space and resources that they might not be able to access from home
- ✓ **Fall tutoring:** Give your kids a head-start in the fall semester with **differentiated one-on-one tutoring** to recover lost learning.

Intervening early in the school year is especially important in math, where falling behind on one topic means that you're behind for the rest of the semester.

Fall tutoring can not only help to **reverse the effects of SLL**, but also provide a foundation for grade-level success across the rest of the year.

"The students we selected were almost there, **they just needed an extra boost**. With Third Space Learning **we saw a big impact**, which was reflected in our assessment data."



Liz Avery, Math Instructional Coach
Renaissance Academy Charter School of The Arts



Thinking about summer tutoring?

Here's what you need to consider

When it comes to summer tutoring, there are four factors that your school will need to weigh up:

- 1 **Group size:** one-on-one or small group?
- 2 **Delivery method:** In person or online?
- 3 **Tutor selection:** Internal or external?
- 4 **Scheduling:** Scheduled or on-demand?



If you'd like more information how to choose the best tutoring programme for your school, check out our guide: [High Impact Tutoring Guide for Schools⁷](#)

Group Size

With the opportunity to **hyper-personalize lessons** and **build strong rapport** between tutor and student, **one-on-one tutoring** is proven to have a greater impact on academic attainment than group tutoring.

Delivery method

You'll need to integrate tutoring with any existing summer programs. **Online tutoring** gives **school staff more time elsewhere** and means **you can run 50 tutoring sessions all at the same time** and in the same room.

Tutor selection

Some schools might opt to have their own staff teach over the summer, but for those looking for a more **cost-effective solution** with **trained specialist tutors**, an **external provider** is likely to be a better fit.

Scheduling

While on-demand tutoring might seem convenient, it often sees low student attendance rates. **Scheduled tutoring** means that kids have the same tutor week-to-week, helping them build a **consistent rapport** and see a **higher rate of academic growth**.

Accelerated summer tutoring in your school

Are there kids at your school who struggled with state assessments? Have you identified target students who would benefit from practice over the vacation?

Third Space Learning offers **fully flexible summer math learning for 2nd-8th grade students**, designed to improve math state assessment scores.

Our summer program gives students **regular opportunities to practice math** and develop their problem solving skills over the summer, ready to take on the next school year.

- ✓ **Regular instruction** to combat summer learning loss
- ✓ **Accelerated math learning** in just 4-6 weeks
- ✓ **One-on-one tutoring** for multiple students at once
- ✓ **Personalized summer math instruction** for each individual student
- ✓ **Unlimited one-on-one tutoring** for one low fixed cost

Learn more about the summer tutoring program [here](#) or to look at pricing and scheduling, take a look at the next page.

“We just had our first session and it went great! The kids really liked it and felt like they were learning! One even said he finally felt like math was making sense.”



Michelle Craig,
Instructional Coach Sherwood Forest Elementary,
Washington



Unlimited, flexible, affordable summer tutoring from Third Space Learning

Whole school license	
< 200 students	\$5,000
200 to 500 students	\$10,000
500+ students	\$15,000

Low yearly price includes:

- ✓ Unlimited sessions
- ✓ Unlimited grade 3 to 8 students
- ✓ Assessments
- ✓ Reporting

With Third Space Learning's affordable math tutoring programs, schools can support multiple students simultaneously in a way that works for each student.

Students can attend scheduled tutoring sessions as part of their intervention, or you can launch on-demand sessions whenever they're needed – to work through particular math concepts, cover gaps when you're short-staffed, prepare students for upcoming assessments, or provide summer tutoring.

Because there are no per-session fees, you can use the tutoring programs whenever and wherever you need; at school or as part of your homework approach.

References

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Further reading

American Educational Research Association

Harvard Graduate School of Education

National Summer Learning Association

Dukes Education



THIRD SPACE
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Looking to improve your school's maths results without stretching your budget?

Tutoring from our spoken AI maths tutor Skye gives schools an even more affordable option for every pupil.

- ✓ 90% cheaper than other tutoring providers
- ✓ Curriculum-aligned lessons designed by qualified teachers
- ✓ Discounts available for long-term bookings and MATs

93% of teachers feel Third Space Learning lessons helped their pupils achieve higher assessment scores.

Speak to us

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