



**THIRD SPACE
LEARNING**

High Impact Math Tutoring Guide

How to choose, plan and fund the right tutoring approach for your students for maximum impact in your school or district

SLT Guides

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Introduction

In any class, there are students - often those from disadvantaged backgrounds or those who are classified as special education - who need a little bit of extra help to catch up. In the aftermath of the COVID-19 pandemic in particular, there are thousands of students who have missed essential parts of their education and the achievement gap has widened as a result.

It's now more clear than ever that we need to provide fair and equitable access for all students. With federal funding as well as state funding, school districts have the opportunity to create and implement effective tutoring programs to help all students meet grade level standards.



NAEP scores for the 2022-2023 school year have identified with a continuing decline for middle school aged students in both reading and mathematics. Furthermore there are larger declines since 2020 for lower-performing students in mathematics.

Multiple research studies have found that a well designed tutoring program is one of the most effective ways to close the achievement gap.



Across all studies included in this analysis, tutoring programs consistently lead to large improvements in learning outcomes for students. This impact translates to a student advancing from the 50th percentile to nearly the 66th percentile.

Evidence Review: The Transformative Potential of Tutoring



A recent meta-analysis reviewed studies of tutoring interventions that have been evaluated by randomized controlled trials in the past few decades and found that, on average, tutoring increased achievement by roughly an additional three to 15 months of learning across grade levels.

Accelerating Student Learning with High-Dosage Tutoring,
EdResearch for Recovery,
Annenberg Institute



Why we've made this resource

We know it's one thing to read the research on the effectiveness of tutoring in schools, but another to successfully implement a tutoring program that works for your students, fits with your budget and delivers the desired results - without adding to staff workload.

We've made this guide to make researching, implementing and monitoring an effective math tutoring program as easy as possible for school leaders like you.



Since 2013, over **160,000 students across 4,000+ schools** have received online one-on-one math tutoring from Third Space Learning. We have an enormous responsibility to our schools and districts to make sure the tutoring is as effective, engaging and impactful as possible.

Inside this guide you'll find a summary of the evidence-base of tutoring, as well as all the key learnings from our experience providing online one-to-one math tutoring to schools in the US (and the UK!).

Read on to dive into what makes an effective tutoring program, what funding is available and what questions you'll need to ask to ensure tutoring in your school or district has maximum impact on your students.

Why schools and districts choose math tutoring



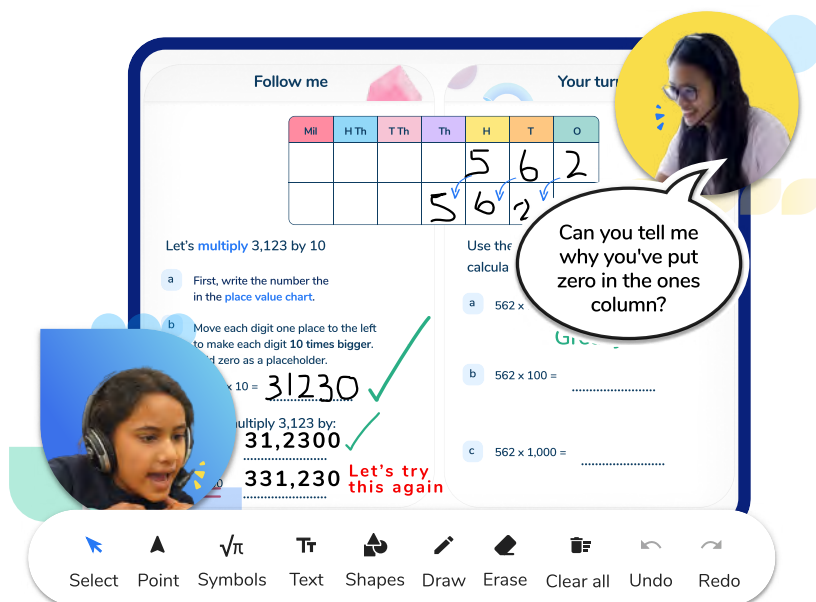
Another review of almost 200 rigorous studies found that high-dosage tutoring—defined as more than three days per week or at a rate of at least 50 hours over 36 weeks—is one of the few school-based interventions with demonstrated large positive effects on both math and reading achievement.

Accelerating Student Learning with High-Dosage Tutoring

EdResearch
For Recovery

Tutoring is particularly important for math where the learning is cumulative in nature, meaning concepts build on each other and rely on prerequisite skills. A student who has not grasped foundational concepts in math will struggle to keep up with their peers and gaps in learning will escalate.

As per the US Department of Education, students who have been taught and developed an understanding of strong foundational math skills tend to do well as they progress through secondary mathematics.



Follow me | Your turn

Mill	HTh	TTh	Th	H	T	O
			3	1	2	3
			3	1	2	0

Let's multiply 3,123 by 10

a First, write the number the in the place value chart.

b Move each digit one place to the left to make each digit 10 times bigger. Add zero as a placeholder.

$3,123 \times 10 = 31,230$

multiply 3,123 by:

$31,230$

$331,230$ Let's try this again

Use the calcula

a $562 \times$

b $562 \times 100 =$

c $562 \times 1,000 =$

Can you tell me why you've put zero in the ones column?

Select Point Symbols Text Shapes Draw Erase Clear all Undo Redo

It's no wonder that **math is consistently among the most popular subjects for tutoring in schools**, and there are a number of other reasons why schools and districts choose to implement math tutoring in particular to supplement whole class teaching.

- ✓ Target and address individual gaps and misconceptions
- ✓ Adapt the pitch and pace of delivery to suit individual pupils
- ✓ Provide additional opportunities for disadvantaged pupils
- ✓ Provide additional standardized test question practice for pupils who need it
- ✓ Boost engagement and confidence in pupils who suffer from math anxiety or are reluctant to speak up in class
- ✓ Prepare students for moving up to middle school, high school or on to college

We recently asked a few of our longest-standing schools why they return to Third Space Learning's math tutoring programs each year:

"Really powerful intervention that meets the needs of the key marginal children"

"10 children having an intervention at the same time is more efficient than one at a time."

"1:1 tuition for multiple children at the same time is a fantastic use of time. It's coherent with our curriculum."

"Being able to individually tutor for 1:1 Learning objectives"

"Time efficiency: 10 children with Third Space and 20 with the class teacher having targeted teaching."

Characteristics of effective tutoring

While there is no one-size-fits-all approach for tutoring, there are certain characteristics that studies have found to be conducive to effective tutoring for schools. These fall into the following categories:

- ✓ **Student selection:** disadvantaged students, those who have fallen behind a certain threshold, and those in later grades are the 'best candidates' for math tutoring
- ✓ **Tutor criteria:** choose tutors who are subject-specialists and have received specific training in education and/or tutoring
- ✓ **Instructional materials:** ensure these are aligned with the content students are learning in class
- ✓ **Personalization:** use data and assessments to tailor instruction to each student's needs
- ✓ **Group size:** one-on-one tutoring is more effective than group instruction
- ✓ **Mode of delivery:** online tutoring is just as effective as face-to-face
- ✓ **Scheduling:** scheduled tutoring is more effective than 'on-demand' tutoring, and is most effective when it takes place during the school day or immediately after school
- ✓ **Dosage:** three times per week is the optimal dosage
- ✓ **Program length:** the longer students receive tutoring, the better
- ✓ **Scalability:** standardizing tutoring as much as possible and opting for online sessions delivered by trained professionals can help to make tutoring more scalable

Student selection

Studies have shown that tutoring is effective across all grade levels, even those who are significantly far behind where they need to be.

That being said, there are certain groups of students for whom tutoring is particularly beneficial:

- ✓ **Students from low socioeconomic backgrounds** who are less likely to have access to this kind of targeted support outside of school. In fact, tutoring has found to be the most effective intervention for disadvantaged students.
- ✓ Studies suggest that math tutoring in particular **tends to have a greater impact as students get older**. This is because when students have reached these later graders, they have fallen further behind and there is more scope for growth.

When considering which students to select, EdResearch for Recovery highlight three potential approaches:

- ✓ **Need-driven tutoring:** prioritizing those students who have fallen behind a certain threshold
- ✓ **Curriculum-driven tutoring:** providing tutoring at certain points of the curriculum
- ✓ **Universal tutoring:** implementing a tutoring program that serves all students in the school

When considering which students to select, EdResearch for Recovery highlight three potential approaches:



The majority of studies focus on need-driven tutoring, and this is also the approach most schools and districts that have implement tutoring from Third Space Learning have chosen.

With Third Space Learning, schools select how many and which students they'd like to support, and pricing is calculated according to this number and according to the school's chosen session length and dosage.

73% of schools signed up for Third Space Learning math tutoring are Title I schools, with most schools choosing to prioritize students from low socioeconomic backgrounds for their tutoring.

When thinking about math tutoring specifically, you may wish to consider the following types of students:

- ✓ Students who suffer from math anxiety; having extra support away from their peers can help enormously
- ✓ Students who are at risk of not meeting age-related expectations in math
- ✓ Students who struggle with math standardized tests and state assessments
- ✓ Students with learning gaps from previous years

We recently asked a few of our schools which kind of students they feel the math tutoring works best for:

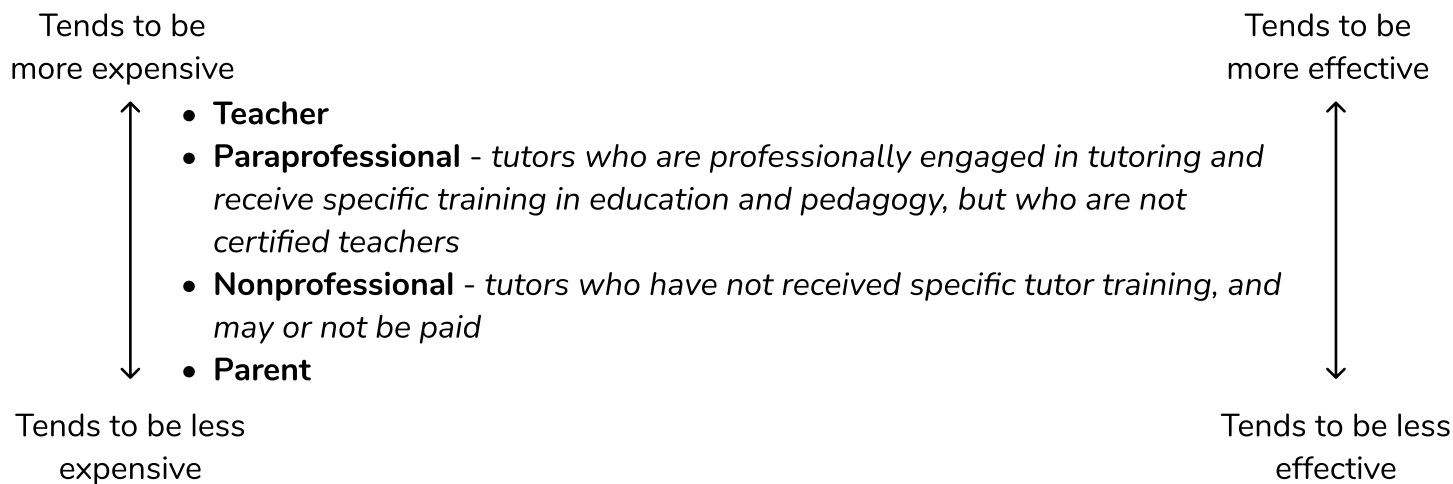
"Children who are at risk of not meeting academic standards. They see content and visual representations which they also encounter in class and can recall seeing it during their Third Space session."

"Children who are reluctant to say when they don't understand."

"Those working below grade level but would like to improve and are ready to focus."

Tutor criteria

For most schools and districts, there are four options when choosing a potential tutor or group of tutors:



Studies show that choosing teachers and/or paraprofessionals is most effective.



Third Space Learning tutors are all professional tutors. We recruit STEM graduates and undergraduates and provide extensive math tutor training. Tutors complete an initial intensive tutor training program before they deliver their first session, and receive ongoing professional development throughout their career.

When looking at tutoring as a whole, teachers tend to be the most consistently effective choice. This is no surprise as they have the most training in delivering effective, curriculum-aligned instruction to groups of students.

However, when we look specifically at one-on-one and smaller group tutoring, research suggests that paraprofessionals are just as effective.

It's also worth considering the cost of the different options. While teachers might be the most consistently effective, most schools will be unable to fund teacher-led tutoring for every student that needs it. Paraprofessionals are likely to be the most cost-effective choice for schools and districts.

Nonprofessional and parent tutors have smaller but not insignificant positive impact, but most research suggests that paid nonprofessional tutors are more effective than volunteers.



"I listened in on one session and thought the tutor was excellent: enthusiastic and clear. It's excellent. Students were very engaged and said they liked it. I believe the feeling of liking it comes from feeling successful. They understood what was being explained and they could do it. The tutors were excellent and the students' conceptual understanding was improving."



Schipper Clawson

Math Teacher, Frontier Middle School

Instructional materials

Research suggests that tutoring content must be:

- ✓ High-quality
- ✓ Aligned with core classroom content
- ✓ Aligned with grade-level standards

For example, all Third Space Learning math tutors are trained on Common Core State Standards and any state-specific standards they'll be teaching. Schools can select which particular areas they'd like pupils to focus on. Tutors use our specially created curriculum of 500+ lessons, each following a structured 'I do, we do, you do' approach to help build conceptual understanding.

Let's learn

The **Gattegno chart** can help us to see what happens when we multiply or divide a number by 10 or 100.

1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

We can move our finger up or down the chart by one row to multiply or divide by 10. What is 20×10 ?

200

b. What is $50 \times 100 =$ 5,000 We need to move up two rows to multiply by 100

Follow me

The **place value chart** is also useful to see this relationship.

Th	H	T	O
8	0	0	0

We can say that 800 is 100 times the size of 8

a. Let's use a place value chart to work out: $1,300 \div 100 =$

Th	H	T	O
1	3	0	0

b. First, we write the number in the chart. Then move each digit two columns to the right.

Your turn

Solve the following using the **place value chart**.

$25 \times 100 =$ _____

Th	H	T	O
2	5	0	0

When multiplying by 100, we move each digit two columns to the left. zero is used as a placeholder

You do

a. Fill in the missing numbers.

$30 \times 100 = 3,000$ $50 \times 100 = 5,000$

b. $1,500 \div 150 = 10$ c. $1,300 \div 10 = 130$

1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

You can use the **place value charts** to help you.

Th	H	T	O
5	0	0	0
		5	0

Go further

Jane's walk to school is 190m.
Eva's walk to school is 10 times as far.

How far does Eva walk to school?

$190 \times 10 = 1,900$

1000m = 1km
1km 900m

Personalization

One of the main benefits of tutoring is that it can close individual learning gaps, so clearly tutoring needs to be personalized to be effective.

There are a few ways to ensure tutoring is tailored to student needs:

- ✓ **Use data to guide instruction:** review assessment data and choose topics or learning pathways that provide support where each student needs it most
- ✓ **Use in-session assessments:** use tutors and/or tutoring providers who assess prior learning and student understanding within the tutoring session, enabling them to adapt their instruction to suit.



At Third Space Learning, schools and districts come to us to provide personalized one-on-one math instruction for the students who need it most:

- 1 Schools can select a personalized learning pathway for each student, depending on their needs
- 2 If they prefer, they can send us their assessment data and we'll select the most appropriate pathway
- 3 Every lesson begins with two open-ended questions to help tutors assess baseline knowledge
- 4 If the tutor feels the student needs a refresher, a 'prior learning' slide is available

Order lessons by: TEXAS 4th Grade

Grade	LEARNING OBJECTIVE
<input type="radio"/> 4	4.2 (A) - Understanding scaling within place value
<input type="radio"/> 4	4.2 (B) - Knowing the value of each digit in numbers up to 10,000,000
<input type="radio"/> 4	4.2 (C) - Ordering numbers up to 10,000,000
<input type="radio"/> 4	4.2 (D) - Rounding any whole number to a required degree of accuracy
<input type="radio"/> 4	4.4 (A) - Solving multi-step addition and subtraction problems
<input type="radio"/> 4	4.4 (B) - Multiplying and dividing by 10 and 100
<input type="radio"/> 4	4.4 (E) - Solving real-life problems with bar models

Today you will learn about

Understanding Proportional Relationships

Learning Goal

The best drink at the Smoothie Shack is the berry smoothies. It takes 3 cups of strawberries to make 2 berry smoothies. The Smoothie Shack only has 15 cups of strawberries left. How many berry smoothies can the Smoothie Shack make?

Prior Learning

Determine if $\frac{4}{9}$ and $\frac{20}{45}$ form a proportion.

Prior learning

We use the **order of operations** to solve all expressions and equations.

When solving, always use the following order:

- () Parentheses
- 5th Exponents
- ÷ × Multiplication and Division
- + - Addition and Subtraction

Solve multiplication and division from left to right, in the order they appear in the equation.

Solve addition and subtraction from left to right, in the order they appear in the equation.

5 (4 - 1) - 23 + 5 = _____

- a. Solve with the parentheses first: 5 (_____) - 23 + 5
- b. Then solve the exponents: _____ × _____ - 23 + 5
- c. Then solve the multiply: _____ - 23 + 5
- d. Then solve the subtract: _____ + 5
- e. Add finally add: _____

Group size

One-on-one tutoring has the strongest evidence of effectiveness:

- ✓ Learning can be completely **personalized** to one individual student's needs
- ✓ Tutors can respond to individual gaps and misconceptions **immediately**
- ✓ Individual students receive **maximum learning time**
- ✓ Less confident students **feel more at-ease** and willing to try away from their peers

However, it's again worth noting the higher costs traditionally associated with one-on-one tutoring versus group sessions.

This is why many schools choose Third Space Learning; they can receive personalized one-on-one tutoring for the price other providers charge for group sessions.



"Third Space Learning is just as effective as bringing in a one-to-one tutor but it's so much cheaper, so you can afford to have more children doing it. Plus, the children love it and they're so enthusiastic about it! What's not to like? It's cheaper, the children do just as well and they really like it!"



Clare Sealy
Headteacher

Mode of delivery

Research suggests that online tutoring and face-to-face tutoring have similar positive impacts.

Online tutoring is likely to be a better choice for schools who:

- ✓ Are limited by budget; online tutoring is often cheaper than face-to-face
- ✓ Are limited by supply; online tutoring opens up access to a wider pool of tutors
- ✓ Are limited by time and space; provided students use headsets, multiple students can receive online tutoring at once, all in the same room



A recent small-scale evaluation of an elementary math online tutoring program found promising results. Students who received online one-to-one tutoring showed greater gains on a math assessment than those who did not, which compares favorably to effects found by other, in-person elementary math tutoring programs.

Ed Research for Recovery

EdResearch
For Recovery

Scheduling

There are a few key things to consider when scheduling your school or district's tutoring:

- 1 Tutoring **must be scheduled**; research suggests that 'on-demand' tutoring is unlikely to be effective and unlikely to reach the students who need it most

"Simply providing students with access to tutoring is unlikely to be effective for all students. Tutoring interventions often are not successful when there are no minimum dosage requirements, little oversight, and minimal connections with the students' schools..."

- 2 Tutoring should be scheduled **within the school day** for maximum impact and attendance

...The recent meta-analysis of tutoring studies found that the effects of programs conducted during the school day are roughly twice as large as those conducted outside of school...

- 3 Tutoring should be scheduled in such a way that students can learn with the **same tutor** for every session

...Ensuring students have a consistent tutor over time may facilitate positive tutor-student relationships and a stronger understanding of students' learning needs."

EdResearch for Recovery

It's worth noting that where it is not possible for tutoring to take place within school hours, research suggests that it should take place immediately after school.



Third Space Learning tutoring sessions are available before, during and after school. Most schools choose for sessions to take place in WIN blocks (usually just before or after lunch) or immediately after school.

It's essential that tutoring is scheduled at a regular time that suits your timetable and that you as a staff can manage.

You'll need to think about:

- ✓ When is your chosen tutor available?
- ✓ When/where do you have the time/space to run the tutoring with your preferred number of students?
- ✓ If running online tutoring, when do you have the necessary equipment?
- ✓ How often do you want the tutoring to take place?
- ✓ If during school, which lessons are you happy for students to miss?

Dosage

Several US studies have found little evidence that one tutoring session per week is enough for students to make sufficient growth.

For math in particular, high-dosage tutoring - defined as 30-60 minute sessions at least three times per week over a sustained period of time (about 50 hours over a semester) - has been found to be **20 times more effective** than low-dosage tutoring.


In fact, high-dosage tutoring is one of the most best-evidenced interventions out there, with one of the largest effect sizes of all interventions.

★
Another review of almost 200 rigorous studies found that high-dosage tutoring—defined as more than three days per week or at a rate of at least 50 hours over 36 weeks—is one of the few school-based interventions with demonstrated large positive effects on both math and reading achievement.

Ed Research for Recovery

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For Recovery

Research suggests that three sessions per week is the optimal dosage, with only kindergarten and first grade students appearing to benefit from four or five sessions per week.

 Schools signed up to Third Space Learning's online one-on-one math tutoring program have full flexibility when it comes to session duration and dosage. Most schools choose either:

- 3 x 30 minute sessions per week
- 2 x 45 minute sessions per week

Program length

★
All else being equal, longer intervention periods should yield higher effect sizes.
The Impressive Effects of Tutoring on PreK-12 Learning: A Systematic Review and Meta-Analysis of the Experimental Evidence

Annenberg Institute at Brown University

Ultimately, **the longer your students receive math tutoring, the more impact you'll see.** As a provider with real experience providing tutoring for schools, we've seen that it's not always as simple as that:

- ✓ You may have a specific goal in mind for your school's overall tutoring experience, or for specific students.
 - For example, if you're looking to provide personalized support to help prepare students for state assessments, you'll only need the program to run until these take place.
 - Many schools signed up to Third Space Learning choose to continue the program after assessments, but adopt an 'early intervention' approach and swap to students who need as much support as possible for the following year.
- ✓ Schools may not have the budget to provide tutoring for as long as they might like
 - This is why many schools choose online math tutoring from Third Space Learning. We're able to provide cost-effective tutoring that enables schools to maximize their funding and students to benefit longer-term.
- ✓ Some students may simply experience 'tutoring fatigue'; they may be enthusiastic and engaged for a period of time, but after a while they disengage
 - This is why we offer full flexibility. If schools do come across students who are no longer engaging, they're free to swap in another student.



Most of the schools we work with choose for the online one-on-one math tutoring to take place up until state assessments, for at least 12 weeks.

Scalability

One of the main challenges when it comes to tutoring is making it work across multiple classes, grade levels and schools.

We've already seen the power personalized standards-aligned instruction has to accelerate growth, but how can schools and districts implement this in a scalable way - without impacting the quality or effectiveness of the tutoring?



Many educational programs that show effects in smaller trials appear less effective when implemented for large groups of students. However, studies of 15 larger-scale tutoring programs serving between 500 and 7,000 students still found that these programs generated meaningful gains.

EdResearch for Recovery

EdResearch
For Recovery

Tutoring can be less likely to be effective for larger groups because there simply isn't enough resource to ensure every student receives consistent access to the same quality of tutor, instructional materials and personalized learning.

There are few ways to make sure your tutoring program works at scale:

- ✓ Use a **standardized bank of lessons** to use in every tutoring session
- ✓ Consider **online tutoring** to open up access to wider pool of high-quality tutors, minimize costs and save time (multiple students can learn in the same time slot)
- ✓ Use data to **inform instruction** and ensure tutoring is personalized to close individual gaps
- ✓ Consider tutoring delivered by **paraprofessionals** to minimize costs
- ✓ Consider an **external tutoring provider** who has experience providing tutoring for schools at scale



Third Space Learning: providing personalized high-impact one-on-one math tutoring at scale:

- ✓ **Reach more students at more schools:** Multiple students receive online one-on-one support in the same timeslot
- ✓ **Maximize staff capacity:** Teachers are free to focus on core instruction or small groups
- ✓ **Accelerate growth:** All tutoring is personalized to close individual learning gaps
- ✓ **Standards-aligned instruction:** Tutors use a curriculum of specially-created scaffolded lessons
- ✓ **Math specialist tutors:** All our STEM-specialist tutors undergo rigorous training and pass background and FBI fingerprint checks

How much does math tutoring cost?

★
One study of a Chicago high-dosage math tutoring program found that it cost on the order of \$3,800 a student over a school year, though economies of scale could potentially bring that figure down if it's expanded.

EdWeek, 2020

Traditionally, tutoring is a fairly costly intervention option, but its large average effects means it's actually one of the **most cost-effective** approaches.

Internally-resourced tutoring

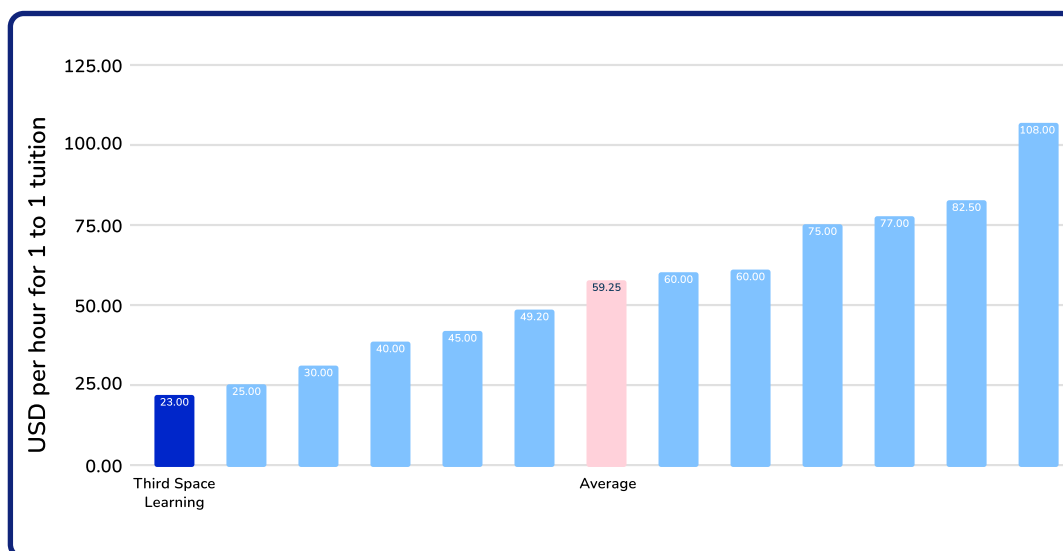
If you opt to staff your tutoring internally, it can be hard to quantify the exact cost. It all depends on a few key questions:

- ✓ Is it part of our existing staff budget or are you paying staff extra to take on additional tutoring responsibilities?
- ✓ How do you cost up the time required to plan and manage the tutoring?
- ✓ Will you need to pay for additional tutoring training?
- ✓ Are you using certified teachers or paraprofessionals? Teachers will be much more costly, but paraprofessionals may require additional training.

External tutors

The cost of tutoring from external tutoring varies from provider to provider, and whether you opt for online or face to face (the former tends to be cheaper), or one-on-one or small group (the latter tends to be cheaper, but can require more sessions to make the same progress).

We looked at 12 of the most popular tutoring providers and found an average cost of \$59.25 per student per session:



Pricing for personalized online one-on-one tutoring from Third Space Learning depends on each school or district's chosen session length and dosage:

	Core (Once a week)	High Dosage (3 times a week)	Intense Booster (5 times a week)
30 minute session (cost per student)	\$20	\$18	\$16
45 minute session (cost per student)	\$25	\$23	\$21



At Third Space Learning, we're proud to be the most affordable one-on-one math tutoring provider. The price of Third Space Learning's math tutoring includes:

- Headsets for every students
- Full set up in less than 7 days
- Dedicated Account Manager per school
- Initial and ongoing assessments
- One tutor per student
- Regular reports

How to fund your tutoring

Title I

The Department of Education distributes Title I funding to State Departments of Education who then distribute funding to individual school districts. Each school district then divides this funding among qualifying schools based on the numbers of students from low-income families. 58% of public schools in the US receive Title I funding.

Title I funds are for the purpose of providing children opportunity to receive an equitable, and first rate education, as well as to close achievement gaps. Funding must be used on research-based strategies. For this reason, tutoring is often a service that Title I schools provide for disadvantaged students; it is both evidence backed and provides an opportunity to catch up to their more advantaged peers.

One other requirement of Title I funding is that the district has to explain how it will promote parental involvement in its Title I program. This can be achieved with Third Space Learning's tutoring through informational letters to parents (which are provided), sharing weekly and termly reports on progress (printable via our online platform), and through sharing educational blogs and resources with parents¹.

- ✓ **Amount:** Typically \$500-600 per student per year for eligible Title I schools, although this varies based on location. If using this for Third Space Learning math tutoring, a Title I student could receive weekly math tutoring for an entire academic year using Title 1 funding alone
- ✓ **Frequency:** Annual funding

ESSER

The Elementary and Secondary School Emergency Relief (ESSER) fund is the government's response to the Covid-19 pandemic and the subsequent learning loss created. The latest fund is ESSER III fund worth \$122 billion, of which at least 90% of funds must be distributed to LEAs (Local educational agency) based on their proportional share of ESEA Title I-A funds.

ESSER funding expires in September 2024. That means 2023/24 is the last school year in which this funding program will be available for K-12 education. However, new guidance means that although states have to commit the federal funding by the end of the 2023/24 school year, they can apply to extend it.

ESSER formula funds are available to every school in the district, regardless of its Title I status, and charter schools are also eligible to receive ESSER funding grants. **This fund also requires school districts to use no less than 20% of their share of ESSER III funds to address learning loss.**

- ✓ **Amount:** \$122bn distributed to State Educational Agencies then to Local Educational Agencies to be provided to school districts through grants. ESSER provides approximately \$1,000 per student or an increase of approximately 8% in overall funding, depending on your state.
- ✓ **Frequency:** One-time funding grants
- ✓ **Deadline:** To be obligated by September 30 2024

Title II, Part A (ESEA)

Title II, Part A Funding focuses on supporting the professional development of teachers and school leaders.

While this initiative might not directly fund a math intervention, it can be relevant to funding CPD for specialists providing support for your students — for example, funding the training of math tutors if you are running an in house tutoring program.

- ✓ **Frequency:** Annual funding

Title IV, Part A

Student Support and Academic Enrichment (SSAE) Grant

Purpose of Title IV Part A is categorized into three broad areas

- 1) Well rounded education
- 2) Safety and health
- 3) Effective use of technology.

Under "well-rounded" education funds can be used for supporting programs in core curriculum such as mathematics.

- ✓ **Frequency:** Annual funding

Title IV, Part B

21st Century Community Learning Centers

The purpose of the 21st Century Community Learning Center is provide funds to school districts for after school programs, such as after school tutoring, aimed at improving student achievement.

✓ **Frequency:** Annual funding

GEAR UP

GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) is a federal grant program providing funding at the middle and high school levels to support college readiness initiatives. Usually tailored to the specific needs of the local community, GEAR UP services often include:

- In-school mentoring or tutoring programs
- Scholarships or financial aid
- College and career planning alongside parental engagement programs

✓ **Frequency:** Every 6 years

IDEA, Part B

IDEA (The Individuals with Disabilities Education Act) provides federal funding to assist states and localities in supporting the education of children with disabilities. In order to be eligible for these funds, school districts must show compliance with the key areas of IDEA. Schools and districts may use IDEA funds to enhance special education services, including, but not limited to:

- If consistent with the student's IEP, tutoring to support disabled students
- High-quality instructional materials to support tutoring
- Assessment of student needs and progress
- Professional development for staff that provide tutoring focused on meeting the needs of students with disabilities

✓ **Frequency:** Annual funding

Which tutoring delivery methods are most impactful?

When it comes to school tutoring, there are four core choices your school will need to make:

- 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?

One-on-one vs small group

One-on-one tutoring

- ✓ Most effective tutoring
- ✓ +5 months' progress

One-on-one tutoring provides the most targeted level of support for students as tutor and student work together in a hyper-personalized manner.

Strengths	Weaknesses
Impact: Most impactful delivery method for tutoring and low attaining students are particularly likely to benefit.	Cost: Traditionally expensive to deliver.
Hyper-personalized: Lessons can be tailored to meet the exact needs of the student and misconceptions can easily be addressed in real-time as they occur.	Scale: Difficult to scale to a large group of students without multiple tutors, making it more challenging to deliver in person or using in house staff.
Student confidence: Many students feel more confident working one-on-one with a tutor, away from their peers.	Staffing issues: It can be incredibly difficult for schools and districts to find the staff to deliver one-on-one tutoring for their students
Rapport: Easier to build rapport with students.	



Choosing online one-on-one tutoring may mean that your school can combat some of the traditional weaknesses listed above. For example, schools choosing Third Space Learning benefit from one-on-one tutoring for the price many other providers charge for group sessions. By taking tutoring online, we've been able to provide 4,000+ schools with personalized tutoring that's aligned to each student's individual gaps for roughly one third of the cost of traditional one-on-one.

Small group tutoring (sometimes referred to as one-to-many tutoring)

- ✓ Effective
- ✓ +4 months' progress

Small group tutoring is done in groups of up to 6. Evidence suggests that the impact of tutoring one to many is **significantly weakened beyond 1 to 3 delivery**.

Strengths	Weaknesses
Impact: Although the evidence suggests one-on-one tutoring results in greater learning gains, students do still show growth with small group tutoring.	Impact: Less impactful than one-on-one tutoring and less effective in middle schools than elementary schools.
Cost: As multiple students can learn with the same tutor, small group tutoring is generally cheaper than one-on-one.	Diagnostic assessment: Requires deep data analysis of student performance levels to create meaningful student groups.
Peer learning: Learning in groups provides opportunities for students to learn from and teach their peers.	Group size: The larger the group, the more impact drops off (evidence suggests groups need to be no larger than one tutor to three students).
	Recruitment: Still needs lots of tutors so in house staffing can be problematic.
	Training: More challenging for tutors to deliver so tutors typically require more training to be effective.
	Tech: If delivering online, a tech issue for one student can ruin the lesson for all students in the group.

A key thing to remember is that it's really important that you match students based on their learning gaps - you can't throw three students who need different areas of support together and expect them all to make progress!

In person vs online

There is currently no evidence to suggest that one or the other is more effective so it comes down to school's preference. Here's a summary of strengths and weaknesses for both to help you make a decision for your school's needs.

In person tutoring

In person tutoring offers a tech-free tutoring experience where students may be able to more easily build rapport with students, however it is expensive and reliant on the quality of tutors in your local area.

If the in person one-on-one tutoring is not part of the school program, the tutor can be costly and might not be obligated by the school to collect or share data on the learning goals. Facilitated one-on-one tutoring program in a school is also costly and staffing is a major issue.

Strengths	Weaknesses
Easier rapport building: Face to face communication with the tutor can make it easier to build rapport.	Cost: More expensive than online as it requires increased travel and time from the tutor.
No technology needed: Not reliant on access to computers.	Recruitment: Challenging to recruit local tutors - you are limited by what is available in the local area.
Easier to encourage attendance: Students are sometimes more likely to attend if they know they're going to be working face-to-face with a tutor.	Resources: Each tutor and student will need a separate area to work as they will be communicating aloud - this limits the amount of sessions that you can run at once.
	Reporting: Reporting can be more challenging as you have to keep records of who has had which sessions, whereas online providers often provide all of this data automatically.
	Scheduling: Restricted to the time slot availability of the local tutors so sessions may not fit the school timetable.

If you are looking to just tutor 1-2 students then in person may be the best option, but if you have 10-20+ students needing additional support, then it's likely that delivering sessions online will be easier for the school to manage, and access sufficient numbers of high quality tutors.

Online tutoring

Online tutoring can offer a cost-effective alternative to in person tutoring. Alongside cost benefits, online tutoring can allow an entire class to benefit from personalized support in the same room at the same time which makes it easier for the school to manage.

Strengths	Weaknesses
Cost: More cost effective solution as saves on travel and time expenses for the tutor.	Usability: Ensure the online classroom has been built with your subject in mind - eg. if teaching math, the online classroom should have adaptive tools for mathematical symbols.
Scale: Greater capacity and can reach more schools - you can run 50 tutoring sessions all at the same time and in the same room.	Technology: Reliant on access to wifi and technology in school.
Recruitment: Much wider access to tutors - you are no longer limited to your local area so can be more particular about tutors having experience tutoring your chosen subjects.	
Reporting: Automated capture of tutoring hours, impact, and pupil experience for reporting purposes.	
Scheduling: Easier to schedule and reschedule sessions via an online platform - typically online providers have more flexibility on when sessions can run.	

Choosing an online tutoring approach can be a much more cost-effective solution for your school or district, but you'll need to make sure that you choose a tutor or tutoring organization that doesn't compromise on the student-tutor relationship and who uses technology to enhance the experience, not weaken it.



How does Third Space Learning counteract the challenges of online delivery?

At Third Space Learning, all tutors are highly qualified and trained in the best ways to build rapport with students. Students learn with the same tutor each week, and tutors take the time get to know each student at the start of their time together.

Tutoring takes place via trusted school tutoring platform Littera, which has been designed specifically to work seamlessly and easily in all school environments. We have integrations with Clever and Classlink to make rostering a simple process. It is also easy to collect and share data on student growth

Internal vs external

There are benefits to both internal and external providers for in-school tutoring. For schools with extra staff availability, available rooms and who are looking to target a small, select group of students, an internal provider may be the right choice. However many schools do not have the time or resources and external providers can offer more benefit for both staff and students.

Internal provider

Strengths	Weaknesses
Easier rapport building: Students may already know their tutor so might develop a rapport more quickly.	Staff workload: Can increase staff workload and create more stress.
Collaboration: Easy for the tutor and teacher to collaborate - particularly if the teacher is also the tutor.	Cost: As tutoring provided internally is often in person, fewer students can take part due to costs and the number of sessions that you can run within an hour.
	Set up: Can be logistically difficult to set up and responsibility for this will land on the school.

External provider

Strengths	Weaknesses
Less impact on staff workload: Using external providers frees up your teachers to do what they do best and focus on quality first teaching.	Recruitment difficulties: If looking for face-to-face tutoring, it may be difficult to recruit tutors in your local area. Online alternatives will overcome this issue.
Easier to manage: A good external provider will take care of managing the intervention with minimal disruption to the school.	
Better monitoring and reporting: It's in an external provider's interest to provide detailed progress reports to ensure you can see impact and continue to use them.	
A more evidence-based approach: External providers will have data from thousands of pupils and schools to inform the most effective intervention approach.	
More ratings and reviews: You'll be able to read case studies and reviews from other schools who've used the provider to help decide if they're right for you.	

Scheduled vs on-demand tutoring

Firstly, what's the difference? Scheduled tutoring is arranged to take place at the same time every week - it can be one session, or multiple sessions, and lessons are typically with the same tutor each week. On-demand tutoring, sometimes referred to as 24/7 tutoring, is available whenever a student wants to access it - normally via an app or website. The student selects a subject and is connected to a tutor, typically within a 10 minute time frame.

On-Demand Tutoring

Strengths	Weaknesses
Empower students to access help when they need it: By offering on-demand help, students theoretically can access the extra support whenever they need it.	Low student usage: As demonstrated in the research study below, the students who would benefit most from the additional support are the least likely to access the tutoring on-demand.
Flexible session length: Students can get 5 minutes or 50 minutes of help depending on what they need.	Inconsistent tutors: Students get allocated a random tutor every time that they access the tutoring so they never get to build a relationship with their tutor.
	Uncertain session lengths: Whilst it can be an advantage, tutors don't have a set amount of time to really help a student and so sessions often consist of helping with one question rather than a full lesson.
	Low quality instructional materials used: Tutors have no time to prepare for lessons and don't know the students, meaning the quality of instructional materials is often low.



While there has been growth in apps offering on-demand tutoring, the evidence base falls significantly short of scheduled tutoring. The most significant research study into on-demand tutoring was published recently and found that rather than reducing educational inequity, they have the potential to increase educational inequality.

Recommended reading: [The inequity of opt-in educational resources and an intervention to increase equitable access.](#)²
Brown University EdWorkingPapers: Robinson, Carly D., Biraj Bisht, and Susanna Loeb. (2022)

The reason for this is that takeup from students is so low. In this large scale RCT, only 19% of all students the program was bought for ever accessed the tutoring and disadvantaged students were even less likely to access the program. If you compare this to the **90%+ attendance rates that Third Space Learning achieves with schools** through scheduled online tutoring, it's clear which is going to have a greater chance of helping students.

Scheduled Tutoring

Strengths	Weaknesses
Evidenced: The strong evidence base for tutoring is almost entirely based on studies that were done using scheduled tutoring.	Requires logistical planning: Schools need to set aside time each week for tutoring to happen. But this does mean that it goes ahead!
Consistent tutors: As students access tutoring at the same time each week, they are able to meet the same tutor which helps to build a consistent rapport.	
High quality instructional materials used: Tutors can prepare in advance and have access to high quality materials on the topic areas that they have planned to cover with their student.	
High attendance rates: As you build tutoring into the school timetable, it ensures that it goes ahead with the students who you have targeted for the additional support.	

Overall the most effective type of tutoring programs that have the potential to close achievement gaps are ones that are facilitated by trained tutors, are well structured, are small group or one-on-one, and have materials and assessment tools to help students meet grade level content and track their progress.



Third Space Learning: a more affordable approach to scheduled one-on-one math tutoring

For many schools, the best possible tutoring option is the one in which each student receives targeted one-on-one support from their own dedicated tutor.

Since 2013, we've worked with thousands of schools to help make one-on-one math tutoring more accessible and affordable.

Because all Third Space Learning tutoring is delivered online via our highly-skilled and extensively-trained global tutor community, schools access personalized one-on-one tutoring for the price other providers charge for group sessions.

We are proud to have provided online one-on-one tutoring to over 150,000 students across 4,000 schools. We'd love to support your school or district. Get in touch today to find out more about how Third Space Learning works and the impact we've had in schools like yours.

How schools encourage attendance

Clearly, tutoring is only successful if pupils attend. While this tends to be more of an issue at secondary than primary, there are a few things schools can do to drive engagement and, ultimately, attendance.

For each suggestion, we've included quotes from schools who've used Third Space Learning's tutoring programs to demonstrate the strategies they've used to keep attendance high.

1. Prioritize student/tutor relationships

- ✓ **Ensure tutor consistency.** One of the reasons we work hard to make sure students have the same Third Space Learning tutor each session is because we know how much of a difference it makes to schools
- ✓ **Designate time at the start of the program for relationship building.** We bake in time in the very first session for tutors to get to know their pupils and establish a rapport.
- ✓ **Find similarities between tutors and students.** During this time, tutors ask students about their hobbies and interests and use this information to personalise their learning, building rapport with students.



"It is astonishing to see how well students build relationships with their tutors and how the tutors adapt their teaching to their interests"

2. Reminders to staff and students

This could be something as simple as printing personalised timetables and using assemblies and form time to remind students, or more sophisticated like email or text reminders.



At Third Space Learning, tutoring leads receive email reminders before each session, ensuring they have plenty of time to remind their pupils.

3. Parental buy-in

Parent buy-in and communication for interventions will significantly improve attendance so it's important that parents are involved from the get-go.

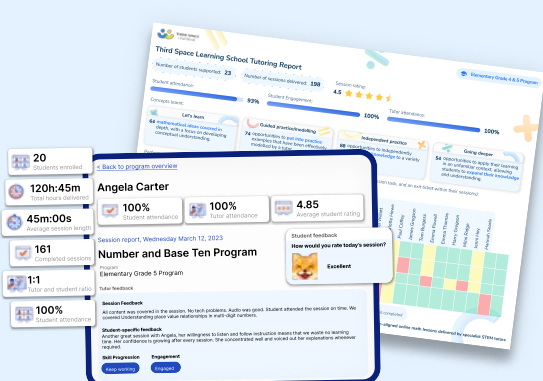
Communicate the benefits of tutoring, make information about the location and timings of sessions readily available and share the expectations of students clearly.

During the course of the intervention, celebrate children's progress and communicate their achievements.



We help schools ensure parents are invested in Third Space Learning tutoring through:

- ✓ Progress reports which staff can send home to parents
- ✓ Certificates which staff can hand out to pupils for them to take home



“We sent letters home for parents which clearly communicated how the school was paying for extra tuition at no cost to parents. Parent engagement was especially important for these students as it required parents to get students in school for the 8am session. The importance of this was passed from the very engaged parents to the students.”

4. Frame tutoring as a privilege

Using language that presents the additional tutoring as a privilege rather than a punishment is key. Behavioural insight research consistently recognizes the importance of positive reinforcement and language.

For example, Celebrate with "we are so excited you have been selected to be part of our interventions" and it is a privilege that can be revoked in the event of non-attendance or non-engagement



"Pupils are told they have been carefully selected to take part and that they have been entrusted with the responsibility of attending."

5. Empower pupils

Engage pupils in dialogue about the benefits of tutoring and involve them in their learning journeys. Explain that these initial assessments function not to test them, but to:

- ✓ Identify areas of strength (i.e. topics that they won't need to cover in depth again!)
- ✓ Identify gaps to make sure their sessions are personalized to their needs
- ✓ Identify misconceptions to ensure they can continue progressing
- ✓ Keep track of their progress and celebrate successes

You may even find you have pupils asking to take part, in which case we always recommend giving these pupils the opportunity if you also feel they'd benefit.



"The reports give a really clear indication of what they've covered and how they've progressed. What's really nice is when I show the children they're really pleased with what they've achieved"

6. Appoint a tutoring rep in school

All of the strategies above beg the same question: whose responsibility is this? Is it the tutors themselves, the school or classroom teachers?

Choose a staff member with visibility and influence and has correct state certification, who can communicate the benefits of tutoring in assemblies, around school and in lessons. Through this, tutoring will be embedded into your school's offering, rather than an extra add-on.

The tutoring rep can also act as a point of contact for pupils, someone they can trust outside of their tutor to go to for further information about tutoring and to discuss any issues or concerns.

They should also follow up on unauthorized absences and work in collaboration with tutors and students to understand barriers to attendance.



“Our students had a scheduled chat with the Maths Lead who took them through why Third Space Learning was important and a privilege and why they should try their best.”

7. Select the right kind of tutoring for student needs

As we've covered earlier in the guide, this is perhaps the most important strategy of them all. Regardless of the sanctions, rewards or promotional efforts around school, if the intervention is not the correct format or level for the student, they will not attend.

Key tutoring considerations for administrators

General math tutoring considerations

Regardless of whether you opt for internally or externally delivered maths tutoring - or if you choose one to one or small group - there are a few things to consider before you begin:

Staffing tutoring

- ✓ Who is the school's 'tutoring lead'?
- ✓ How will this add to staff workload?
- ✓ Who is responsible for reviewing data of students?
- ✓ Who is responsible for communicating with the tutor?
- ✓ Who is responsible for monitoring progress and attendance?

Planning and managing tutoring

- ✓ How will tutoring content be planned and created?
- ✓ How will we align tutoring content with the rest of the curriculum?
- ✓ How will we communicate with tutors?
- ✓ How can we involve parents and carers in the process?

Choosing a tutor

- ✓ How much will this tutor(s) cost me?
- ✓ Is my chosen tutor(s) a math specialist?
- ✓ Has this tutor had specific math tutor training?
- ✓ Does my tutor have in-depth knowledge of the math curriculum?

Choosing pupils

- ✓ Which pupils are in the greatest need of additional tutoring?
- ✓ Do we have particular year groups that are most in need?
- ✓ Do we want to focus on plugging gaps lower down the school or preparing pupils for SATs? Can we do both?

Scheduling tutoring

- ✓ How frequent should sessions be?
- ✓ When should they take place?
- ✓ How long should tutoring last for?
- ✓ What size of group works best?
- ✓ How should I group students?

Internal tutoring considerations

Opting to take tutoring in-house can mean greater control of how the tutoring is delivered, but it can also add to staff workload and potentially take teachers' focus away from whole class teaching, so it's important to consider the following:

Staffing tutoring

- ✓ Who will be responsible for developing the tutoring program in the school?
- ✓ Who will be responsible for informing the tutor of what to cover each week?

Planning and managing tutoring

- ✓ What is our goal and how will we monitor success?
- ✓ Who will be responsible for creating tutoring lesson plans?
- ✓ Who is in charge of collecting timesheets of tutors in order to pay them?

Choosing a tutor

- ✓ Which staff have the time and capacity to take on additional tutoring responsibilities?
- ✓ Which staff member(s) has the required mathematics state certification
- ✓ What training and support do tutors need?

Choosing pupils

- ✓ Is there any reason why a specific student might not be the best fit for our chosen tutor?
- ✓ How many students does our chosen tutor have the capacity to tutor?

Scheduling tutoring

- ✓ When is our chosen tutor available?

External tutoring considerations

Choosing an external tutor or tutoring organization can dramatically reduce the workload associated with tutoring, but it does mean you need to be sure you're choosing a provider who understands what's most important to your school.

Staffing tutoring

- ✓ Who is responsible for choosing the provider?
- ✓ Who will be the provider's first point of contact?

Planning and managing tutoring

- ✓ Are there consistent lessons or is it up to the tutor to create them?
- ✓ How will the provider communicate about pupil progress?

Choosing a provider

- ✓ Are the tutors math specialists with knowledge of state standards?
- ✓ Are the tutors STEM graduates or undergraduates?
- ✓ Do they have experience working with schools?
- ✓ Are the tutors background checked?
- ✓ Do they have a standardized test such as SAT and/or ACT revision program?
- ✓ How much does the provider charge?
- ✓ Are there discounts available for larger bookings or multi-schools trusts?

Choosing pupils

- ✓ Are the particular pupils who might benefit from a 'new face'?

Scheduling tutoring

- ✓ Does the provider offer tutoring before, during and after school?
- ✓ What is the provider's cancellation policy in the event of absences?



- ✓ All Third Space Learning tutoring programmes are designed by former US maths experts
- ✓ Tutoring is guided by **diagnostic assessment** and delivered by **math specialists** who receive extensive training
- ✓ Since 2013, over **150,000+ students** across **4,000+ schools** have received personalised one to one support from our tutors

Your math tutoring checklist

		 THIRD SPACE LEARNING
Appoint a tutoring champion	Designate a staff member to monitor student attendance and learning gains; they should be able to make adjustments to make sure the tutoring is having maximum impact.	
Prioritize one-on-one tutoring	Research shows that personalized one-on-one tutoring - rather than small group sessions - results in the biggest learning gains, especially for students who need more targeted interventions beyond core instruction.	
Opt for scheduled sessions	On-demand tutoring is unlikely to reach the most in-need students as they are less likely to proactively seek out tutoring. It's much more likely that they'll attend a session that's scheduled as part of their school day.	
Choose tutors who are subject matter experts	The most effective tutoring is delivered by tutors who have specific expertise in the subject they're tutoring and have received specific training on tutoring students in small group or one-on-one environments.	
Use consistent instructional materials	Tutoring materials should be specially created, ideally in an 'I do, we do, you do' structure to encourage conceptual understanding. This ensures a consistent source of support that you can be sure aligns with state standards.	
Swap students who don't attend	Some students will respond to tutoring better than others. It's essential that tutoring champions speak with students with low attendance. If it's clear this problem will persist, we recommend swapping them out for a different student.	
Choose a provider with experience with schools	Someone can be a wonderful tutor, but that doesn't necessarily mean they understand the challenges schools face. The best tutoring fits in with the school day, minimizes teacher workload and gives teachers a quick and easy way to monitor learning gains.	
Prioritize exam readiness	It's important that tutors give students opportunities to tackle questions independently to ensure they're ready for their state tests. If possible, choose a provider that also provides supplementary resources so you can help all students prepare for state tests, not just those booked in for tutoring.	




Do you have a group of students who need a boost in math?

Each student could receive personalized lessons every week from our specialist one-on-one math tutors.

- ✓ Differentiated instruction for each student
- ✓ Aligned to your state's standards
- ✓ Scaffolded learning to close gaps

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

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