



THIRD SPACE
LEARNING

AI Tutoring in Schools: A Practical Guide to Improving Results Within Your Existing Budget

A guide for heads of maths and SLT on closing the maths gap with evidence-based, one-to-one tutoring your school can actually afford.

SLT Guides

Contents

- 2** | **Introduction**
Why this guide exists and how to get the most from it
- 4** | **What the evidence says about effective tutoring**
The research behind one-to-one tutoring and the five principles that make it work
- 7** | **Understanding AI tutoring: not all approaches are equal**
A side-by-side comparison of three types of AI tutoring – and which is best suited to closing attainment gaps
- 10** | **How to evaluate an AI tutoring provider**
Six criteria to help you choose a provider with confidence, from impact evidence to safeguarding
- 18** | **AI tutoring evaluation toolkit**
A ready-made comparison grid and question bank you can use in demos, department meetings and SLT meetings
- 22** | **Questions to ask AI tutoring vendors**
The specific questions to put to providers, grouped by theme, so you know exactly what to ask
- 25** | **Evidence-based AI maths tutoring from Third Space Learning**
How Skye, our spoken AI tutor, delivers against each of the six evaluation criteria
- 33** | **Schools using AI maths tutoring with Skye**
Case studies from schools already using Skye to support their students
- 34** | **Next steps**
How to move from evaluation to decision
- 35** | **Glossary: common AI terms explained**
Plain-language definitions of the AI and edtech terminology used in this guide

Introduction

Why this guide exists

Secondary maths departments face a familiar challenge: stretched specialist staffing, finite intervention budgets, and students arriving in Year 7 with gaps that widen the longer they go unaddressed. By Year 11, the cost of those gaps shows up in mock results, foundation-tier outcomes and Progress 8.

The evidence for one-to-one tutoring is strong. According to the Education Endowment Foundation (EEF), it can deliver up to five months' additional progress, making it one of the most effective interventions available. But delivering it at scale has always been expensive.

AI tutoring offers a way to change that equation. It can provide personalised, one-to-one maths support at a fraction of the cost of traditional tutoring – without adding to teacher workload.

The challenge for heads of maths and senior leaders is knowing what to look for. The AI tutoring market is growing quickly, and not all approaches are the same. The differences between them matter for your students, your budget, and your school's safeguarding responsibilities.

That is exactly why we wrote this guide. Third Space Learning has spent more than a decade delivering over 2,100,000 hours of one-to-one maths tutoring to over 4,100 schools. We have built our AI tutor, Skye, on the same evidence base and lesson design that underpins effective one-to-one tutoring.

How to use this guide

This guide is designed so you can read it cover to cover or jump straight to the section you need most. Heads of maths and senior leaders will be able to:

- ✓ **Understand the evidence on tutoring:** what decades of research say about effective tutoring, and why it has been hard to deliver at scale (p.X)
- ✓ **Know the different types of AI tutoring:** a side-by-side comparison of the three types of AI tutoring and what each is best suited for (p.X)

- ✓ **See how schools use it:** seven ready-made use cases for AI tutoring across KS3 and KS4, from Year 7 catch-up to GCSE revision (p.X)
- ✓ **Evaluate AI tutoring providers:** six evidence-based criteria for choosing the right AI tutoring for your school (p.X)
- ✓ **Use the AI tutoring toolkit:** a ready-made comparison grid and question bank to use in demos, department meetings and SLT meetings (p.X)
- ✓ **Spot the red flags:** warning signs that should prompt further questioning before you commit (p.X)
- ✓ **See AI tutoring in practice:** how Third Space Learning's AI tutor, Skye, delivers against the evaluation framework (p.X)

Quick-start question bank

Heading into a demo or meeting? These six questions will tell you more about an AI tutoring provider than any sales deck. The full question bank is on p.X.

- 1 What independent evidence do you have that your platform improves student attainment – not just engagement?
- 2 Are your lessons designed by qualified teachers, or generated by AI?
- 3 When a student gives a wrong answer, what exactly does the AI do next?
- 4 Is student data used to train or improve your AI model?
- 5 Can I watch a live session and see exactly what my students see and hear?
- 6 How many students can I support for one fixed annual cost?

“I'd 100% recommend it. If you want value for money, Third Space gives it, you can use the tutoring as much as you want.”



Nicola Caldwell, Deputy Headteacher,
The Salesian Academy of St John Bosco



What the evidence says about effective tutoring

The case for one-to-one tutoring

Research consistently shows that one-to-one tutoring is one of the most effective ways to help students who are falling behind.

The EEF's Teaching and Learning Toolkit rates one-to-one tutoring as having high impact for relatively low cost, with an average of five months' additional progress. Small group tutoring (two to three students) also shows strong results, though the evidence is clearest for one-to-one support.

For schools working to close the attainment gap, particularly for disadvantaged students or those who have fallen behind their peers, tutoring is one of the best-evidenced interventions available.

For secondary maths departments, the case is strongest for students arriving in Year 7 with significant gaps from primary, foundation-tier GCSE students, and Year 11 cohorts preparing for mocks and final exams.

The Effective Tutoring Framework

Research consistently identifies six principles that distinguish high-quality tutoring from less effective approaches. These principles underpin the evaluation criteria later in this guide.

1 Dialogue and reasoning

Effective tutoring is built on conversation. When students talk through their thinking – explaining their reasoning, describing how they approached a problem, articulating where they are stuck – they strengthen their understanding and make their learning more durable. Tutoring conversations scaffold students' reasoning and help them develop problem-solving strategies. In maths, this is particularly important: the ability to reason, explain, and think critically is as important as getting the right answer.

2 Scaffolded instruction

Effective tutoring does not simply give students the answer when they struggle. It breaks problems down into manageable steps, provides hints that guide students towards understanding, and gradually removes support as confidence builds. This approach – sometimes described as “I do, we do, you do” – is well established in both tutoring research and classroom practice.

3 Immediate, specific feedback

One of the key advantages tutoring has over independent work is the immediacy and specificity of feedback. Rather than finding out days later that they misunderstood a concept, students receive feedback in the moment, allowing misconceptions to be identified and addressed before they become embedded.

4 Structured progression

Effective tutoring follows a clear sequence, building on what students already know and systematically addressing gaps. The most effective programmes use diagnostic assessment to identify where students need support and then deliver a structured programme of lessons that builds understanding over time.

5 Consistency and frequency

The evidence is clearest for tutoring that happens regularly – at least two to three sessions per week over a sustained period. The EEF describes this as “high-dosage” tutoring: frequent, structured, and sustained.

6 A safe space to make mistakes

Students who feel anxious about maths, or who have learned to avoid risk by saying “I don’t know”, are less likely to engage with challenging material. One-to-one tutoring creates a space where students feel safe to try, make mistakes, and build understanding at their own pace – without the pressure of getting it wrong in front of peers.

Why effective tutoring has been hard to deliver at scale

The challenge has never been the evidence. Heads of maths and senior leaders know that one-to-one tutoring works. The problem is practical: finding enough qualified tutors, scheduling sessions around department timetables, maintaining quality across multiple year groups, and funding it all within a stretched intervention budget.

Traditional one-to-one tutoring typically costs around £45 per session. For a department wanting to support 30 students across Year 7 to Year 11 with two sessions per week throughout the school year, costs quickly run into tens of thousands of pounds. Even with Pupil Premium and catch-up funding, it is out of reach for many schools.

This is the gap that AI tutoring is designed to fill. It extends the principles of effective one-to-one tutoring to more students, more often, at a cost schools can sustain – without replacing teachers.

Let's go through it together..

Prism A has half the volume of Prism B.

Area = $\frac{1}{2} \times 8 \times 6 = 24 \text{ cm}^2$ Area = $8 \times 9 = 72 \text{ cm}^2$

Volume of Prism A = $24 \times 10 = 240 \text{ cm}^3$
 = Volume of Prism B = $\frac{1}{2} \times (4 + 8) \times 5 \times d = 25d \text{ cm}^3$
 $240 = 25d$
 $d = 9.6 \text{ cm}$

Find the depth(d) of Prism B.



Maths tutoring with Skye, Third Space Learning's AI maths tutor

Understanding AI tutoring: not all approaches are equal

What AI tutoring is

AI tutoring uses artificial intelligence to provide students with one-to-one educational support. In maths, this might mean working through problems with spoken or written guidance, receiving personalised feedback, and following a structured sequence of lessons tailored to individual needs.

The quality and depth of that support depend entirely on how the AI tutor has been designed, what it is built on, and what it is designed to do.

The term “AI tutoring” is now used to describe a wide range of tools – from simple homework helpers to comprehensive tutoring programmes. For heads of maths and senior leaders evaluating their options, understanding these differences is essential.

At secondary, the differences carry extra weight. Older students are increasingly likely to use general-purpose AI tools for homework and revision on their own initiative – with or without school oversight.

Types of AI tutoring

The AI tutoring tools available to schools broadly fall into three categories. Each serves a different purpose and has distinct strengths and limitations.

“With Skye, it’s completely reliable, it’s completely flexible. You can do sessions whenever you like. It’s just got loads of positives that I feel outweigh the traditional tutoring.”



Nicola Caldwell, Deputy Headteacher,
The Salesian Academy of St John Bosco



	On-demand homework help	Adaptive practice platforms	Structured AI tutoring programmes
How it works	Students ask questions and receive AI-generated answers or explanations	Students work through questions; the platform adjusts difficulty based on their responses	Students follow a structured sequence of teacher-designed lessons, guided by a spoken AI tutor
Best for	Independent revision; students who already know how to direct their own learning	Building fluency and identifying knowledge gaps	Closing attainment gaps; students who need regular, structured support
Dialogue and reasoning	Limited: students ask, AI answers	Minimal: answers are typed, not spoken	Central: students speak, explain their thinking, and reason out loud
Teacher oversight	Low: typically used independently	Medium: teacher dashboards available	High: teachers schedule, monitor, and adjust the programme
Suitable as a Pupil Premium intervention	No, benefits those who are already self-motivated	Partially, it builds fluency, but limited evidence for closing attainment gaps	Yes, structured, frequent, and built on the same principles as high-quality human tutoring

Choosing the right type for your school

For heads of maths and senior leaders, the choice between these three types of AI tutoring is a pedagogical decision as much as a technical one.

If the goal is to help students who are falling behind catch up, close attainment gaps, and build understanding and confidence, the research points towards tutoring that is structured, frequent, and built on dialogue. That is what decades of evidence on tutoring tells us works – and it should inform what schools look for in AI tutoring too.

The DfE has signalled its support for AI tutoring approaches that align with this evidence base. Its work on AI in education has emphasised the importance of structured, teacher-led approaches and raised concerns about the risk of cognitive offloading in less structured tools.

The risk is particularly worth weighing in secondary, where students are old enough to use general-purpose AI tools independently. The consequences of cognitive offloading – students outsourcing their thinking rather than building it – show up directly in mock results and exam outcomes.

When evaluating AI tutoring options, the useful question is: does this deliver the things that make tutoring effective?

How schools are using AI tutoring

AI tutoring can be used in much the same way as traditional tutoring, but with more flexibility and at a lower cost. The table below shows common use cases for AI tutoring across Year 7 and GCSE.

	1. Year 7 catch-up	2. Year 7 pre-teaching	3. Foundation-tier GCSE intervention	4. GCSE revision in the run-up to exams	5. After-school GCSE sessions	6. Homework and home revision	7. On-demand practice before assessments
Who	A group of Year 7 students arriving below age-related expectations, with significant gaps from primary	Year 7 students starting a new KS3 topic (e.g. introductory algebra, fractions, percentages)	Year 10 or Year 11 students working towards a grade 4, often with low confidence in maths	Year 11 students preparing for mocks and final GCSEs	A group of Year 11 students in a mandatory or optional after-school slot, supervised by any member of staff	Year 11 students who want to do extra revision at home	A Year 11 student who wants to revisit a specific topic before a mock, end-of-unit test or final exam
Approach	Schedule two weekly 30-minute sessions to revisit core KS2 maths (fractions, decimals and percentages) through spoken guidance and step-by-step scaffolding	Run a few sessions on the foundational KS2 concepts a week or two before the unit begins, so students arrive with some familiarity	Schedule two weekly sessions targeting foundation-tier specification topics, with content tailored to each student's weakest areas	Run a structured GCSE revision programme, increasing frequency to two sessions per week as exams approach. Sessions can be aligned to mock results or the class teacher's spec coverage	Set up a weekly slot in the IT room or a maths classroom; students work through their personalised Skye sessions while a staff facilitator supervises. Skye delivers the maths teaching	Students self-launch sessions outside school hours from any device with internet access, with teachers able to see what they have completed	Students self-launch a session to repeat or extend a lesson at any point outside their regular schedule
Outcome	Closes primary-to-secondary gaps quickly so students can access the Year 7 curriculum, without pulling specialist staff from whole-class teaching	Reduces the gap between students at the start of a new topic, giving the teacher a stronger foundation to build on in whole-class teaching	Builds both procedural fluency and confidence in the run-up to GCSEs, without adding to the maths department's teaching load	Builds confidence and familiarity with GCSE-style questions, with personalised support across the full ability range	Adds one-to-one maths capacity outside school hours, with no extra planning required and no need for a maths specialist to lead	Extends learning time at no extra staff cost, with the school keeping visibility of what each student has covered	Reinforces learning at the student's own pace, supporting spaced repetition and exam preparation between scheduled sessions

Choosing the right AI tutoring for your school

Once you have a clear picture of the different types of AI tutoring available, the next step is evaluating individual providers. When looking at AI tutoring options, it is easy to be impressed by new technology. However, keeping a clear set of criteria in mind helps you determine which solution is genuinely useful for your school.

The following six areas cover what is most important when choosing an AI tutoring provider. They apply regardless of which type of AI tutoring you are considering.

1 Proven impact on learning

What to look for

Independent evidence of impact is still emerging in AI tutoring, but that does not mean you should accept claims at face value. Look for providers that can show:

- ✓ Independent evaluation or research partnerships with credible institutions, not just internal data
- ✓ Specific, measurable outcomes (such as within-session progress, improvements in understanding of specific topics, or gains on standardised assessments) rather than vague claims about “improved engagement”
- ✓ Transparency about what the evidence does and does not show – a provider that acknowledges the limitations of its evidence is more trustworthy than one that overstates its findings
- ✓ A track record of working with schools in real classroom conditions, not just lab settings or small pilots



Questions to ask:

- ✓ What data or case studies do you have that show improvements in attainment?
- ✓ Are there any research partners, or has your product been evaluated as part of a DfE-approved pilot?
- ✓ How do you monitor progress or identify when students are struggling with certain topics?
- ✓ Is there a baseline assessment to show how far each student has come?

2

Curriculum alignment

What to look for

AI tutoring platforms vary in how closely they follow the national curriculum, GCSE specifications, or a school's scheme of work. Some generate content dynamically using AI, which can mean the material is not always aligned with what students are learning in class or what their exam board requires. Others use lessons designed and checked by qualified teachers and curriculum specialists.

For AI tutoring to reinforce classroom learning rather than running alongside it, the content needs to be mapped to curriculum objectives and year-group expectations. This is particularly important in maths, where sequencing of concepts is fundamental to understanding. At secondary, this is especially true at KS3, where gaps in foundational concepts can affect students' access to GCSE-level content years later.



Questions to ask:

- ✓ Are lessons designed by qualified teachers or generated by AI?
- ✓ Does the content follow the national curriculum, your GCSE specification, or your school's scheme of work?
- ✓ Do lessons follow a structured format that builds understanding progressively – for example, modelling a method before asking students to apply it independently?
- ✓ What structure do the lessons take?
- ✓ Do lessons allow students to explore new concepts, apply their knowledge, and practise more challenging questions?

3 Pedagogical design

What to look for

This is where the differences between AI tutoring approaches become most apparent. An AI tutor should demonstrate sound teaching principles. Content delivery alone is not enough.

The key things to look for are:

- ✓ **Scaffolded instruction:** Does the AI break problems down into manageable steps and provide hints that guide students towards understanding, rather than simply answering?
- ✓ **Dialogue and reasoning:** Does the AI engage students in conversation – asking them to explain their thinking, describe their approach, or articulate why they believe something? Or does it simply mark answers as right or wrong?
- ✓ **Misconception handling:** When a student makes an error, does the AI identify the underlying misconception and address it, or does it just move on to the next question?
- ✓ **Adaptive teaching:** Does the AI adjust its approach based on how the student is responding – providing more support when needed and stepping back when the student is ready to work more independently?

Research consistently shows that tutoring built on dialogue and scaffolding produces deeper, more durable learning than approaches that focus purely on knowledge delivery. When students talk through their reasoning – whether with a human tutor or an AI tutor – they strengthen their understanding and make it easier to recall and apply what they have learned. For GCSE, this is particularly important: reasoning and problem-solving questions test exactly this kind of mathematical thinking.



Questions to ask:

- ✓ Does the AI generate lessons, or are they teacher-designed?
- ✓ What structure do the lessons take?
- ✓ How does the system handle misconceptions – does it identify them and address them, or just flag incorrect answers?

4 Safeguarding and data protection

What to look for

Any AI system used with students must meet your school's safeguarding and data protection requirements. AI tutoring adds specific considerations beyond those you would apply to other edtech tools, because the AI is interacting directly with children – often through spoken or typed conversation. Any provider you consider should be able to demonstrate how their approach aligns with the requirements of Keeping Children Safe in Education (KCSIE 2025) and the Department for Education's guidance on AI safety in schools.

Student safety

- ✓ **Content filtering:** Are there guardrails that prevent the AI from generating harmful, inappropriate, or off-topic content? How are these maintained and updated?
- ✓ **Session monitoring:** Are sessions recorded? Can staff review what was said? Is there a clear process for flagging and responding to concerns?
- ✓ **Transparency about limitations:** How does the provider handle unexpected or off-topic responses from students? Is there a human-in-the-loop process for reviewing and refining content?

Data protection and GDPR compliance

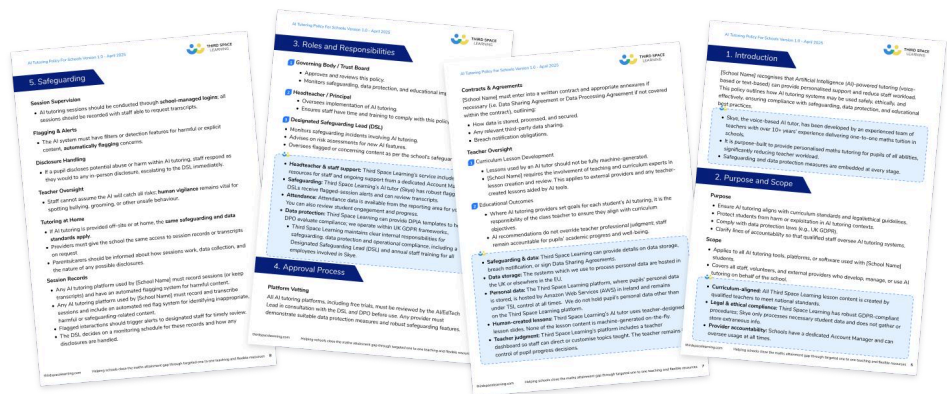
- ✓ **Compliance with UK law:** At a minimum, the provider should confirm they follow GDPR, including secure storage and processing of personal data.
- ✓ **Type of data collected:** Understand whether the system stores names, attainment data, voice recordings, or other personal details.
- ✓ **Use of data:** Clarify whether your students' data or recorded sessions are used to train or improve AI models. Some providers may train their AI using anonymised data, while others might not use session data at all for model improvement.

User access controls

- ✔ **Timetabling flexibility:** Can you define when students can log in, aligning usage with school hours or supervised after-school clubs?
- ✔ **Role-based permissions:** Do teachers and administrators have separate access levels, controlling who can schedule sessions, view progress data, or manage accounts?
- ✔ **Monitoring usage:** Are there usage logs or dashboards that help you track how often each student uses the service?

🎧 Questions to ask:

- ✔ What checks are in place to prevent the AI from generating inappropriate content?
- ✔ Are sessions recorded, and who can access these recordings?
- ✔ How is student data stored, and for how long?
- ✔ Is it used to train or improve any part of the AI model?



[Download your free AI Tutoring Policy for Schools](#) ↓

5 Teacher oversight and integration

What to look for

AI tutoring should support teachers, not bypass them. Teachers should retain control over what students learn, be able to track progress, and intervene if needed.

The best AI tutoring programmes slot into existing school routines rather than creating a parallel system. Look for:

- ✓ **Progress reporting:** Can teachers see clear data on how each student is performing – which learning objectives they have met, where they are struggling, and how they are progressing over time?
- ✓ **Live session access:** Can staff observe sessions in progress or review completed sessions to understand how individual students responded?
- ✓ **Flexible scheduling:** Can sessions be moved, added, or rearranged to fit your timetable – including short catch-up slots and longer revision blocks?
- ✓ **Teacher control over content:** Can teachers choose specific topics, reorder lessons, or adjust the programme based on what they are seeing in class?

For secondary, this needs to fit how a maths department works. Heads of maths and class teachers should be able to see who is doing what, intervene when needed, and adjust the programme alongside their KS3 and KS4 teaching.

AI tutoring that operates as a black box, where teachers cannot see what students are doing or influence the content, is unlikely to integrate well with your wider teaching strategy.



Questions to ask:

- ✓ How do teachers track or influence the content each student receives?
- ✓ Can teachers view summaries or recordings to see how each session went?
- ✓ Can we switch focus areas quickly if students' needs change?
- ✓ What support do you offer if a teacher notices repeated misconceptions?

6 Cost-effectiveness

What to look for

AI tutoring solutions range from free on-demand tools to subscription-based programmes with structured lesson content and teacher support. The right choice depends on what you need the tutoring to achieve.

When evaluating cost, consider:

- ✓ **Pricing model:** Is it per student, per session, or a flat annual fee? A per-session model can become expensive as demand grows. A flat annual fee may offer better value if you want to support a larger number of students.
- ✓ **What is included:** Does the price cover just the AI tool, or does it include curriculum-aligned lesson content, teacher dashboards, onboarding support, and a dedicated account manager?
- ✓ **Reach:** How many students can you support within your budget? Can you expand access without additional cost if more students need support during the year?
- ✓ **Comparison with alternatives:** How does the cost compare with traditional one-to-one tutoring, small group tutoring, or other intervention programmes you are currently using?

At secondary, the budget conversation is typically a maths department or whole-school intervention conversation, with Pupil Premium and any available catch-up funding factored in.



Questions to ask:

- ✓ What does the annual cost cover – is it per student, per session, or a school-wide licence?
- ✓ Are there additional costs for extra features, content updates, or support?
- ✓ What devices and bandwidth are required?
- ✓ Do you offer training for school staff to get started?



Warning signs to watch for

These red flags do not necessarily mean a product is poor, but they should prompt further questioning before you commit.

✘ **No structured lesson sequence.**

If students can ask any question and get any answer but there is no planned sequence of lessons, it is not a tutoring programme. It may work for revision, but it will not close attainment gaps.

✘ **No teacher oversight.**

If you cannot see what your students are doing, review session summaries, or adjust the programme, you have no way of knowing whether it is working.

✘ **Vague safeguarding answers.**

If a provider cannot clearly explain how they handle inappropriate content, manage student data, or respond to safeguarding concerns, treat this as a major red flag. Ask for their AI policy in writing.

✘ **Jargon instead of clarity.**

A provider should be able to explain in plain language how the AI works and what happens when a student struggles. If the explanation needs a glossary, the product may be less transparent than it appears.

✘ **No independent evidence.**

Claims like “our students love it” or “engagement increased by 40%” without independent evaluation or clear methodology should be treated with caution. Ask what the evidence does and does not show.

AI tutoring evaluation toolkit

A practical tool for comparing providers

This section is designed to be used during meetings, demos, or when reviewing AI tutoring options with your maths department and senior leadership team. It brings together the evaluation criteria from earlier in this guide into two practical tools:

- 1 A blank comparison grid you can use to assess two or three providers side by side
- 2 A set of questions to ask during meetings or demos

The criteria are the same ones covered in detail in the AI tutoring evaluation section of this guide.



Provider comparison grid

Use this grid to record how each provider you are evaluating measures up against the six key criteria.

Criterion	Provider 1: _____	Provider 2: _____	Provider 3: _____
Impact on learning			
Is there evidence that this platform improves attainment?			
Has the tool been trialled in real classrooms?			
Is there a baseline or diagnostic to track student progress?			
Can teachers track progress and spot misconceptions?			
Curriculum alignment			
Are lessons created or reviewed by qualified teachers?			
Does content follow the national curriculum, GCSE specifications, or your scheme of work?			
Do lessons follow a structured format (e.g. modelling → guided → independent)?			

Pedagogical design

Does the AI scaffold learning or just provide answers?

Are students asked to explain their reasoning (spoken or written)?

How does the system identify and address misconceptions?

Does the AI adapt its approach based on how the student responds?

Safeguarding and data protection

Are sessions recorded and stored securely for review?

Are there guardrails to prevent inappropriate or off-topic content?

Is the provider GDPR compliant?
How is student data stored?

Is student data used to train or improve the AI model?

Can you control when and how students access the platform?

Teacher oversight and integration

Can teachers assign or change lesson topics easily?			
Can staff observe or review individual sessions?			
Does the platform provide clear progress reports?			
Is scheduling flexible enough to fit your timetable?			

Cost effectiveness

What is the pricing model (per student, per session, or annual)?			
How many students can you support within the budget?			
Are onboarding, training, and staff support included?			
Is the platform compatible with your school's devices?			

Questions to ask potential providers

These questions are grouped under the same six themes as the evaluation grid. Use them during AI tutoring demos or when reviewing provider materials. They are designed to help you move past marketing claims and understand what a provider actually delivers.

Impact on learning

- ✓ What data or case studies do you have that show improvements in student attainment?
- ✓ Are there any independent research partners, or has your product been evaluated as part of a DfE-approved pilot?
- ✓ How do you measure progress? Is there a baseline assessment to show how far each student has come?
- ✓ What does your evidence show, and what does it not show? (A provider that is transparent about the limitations of its evidence is more credible than one that overstates its findings.)

Curriculum alignment

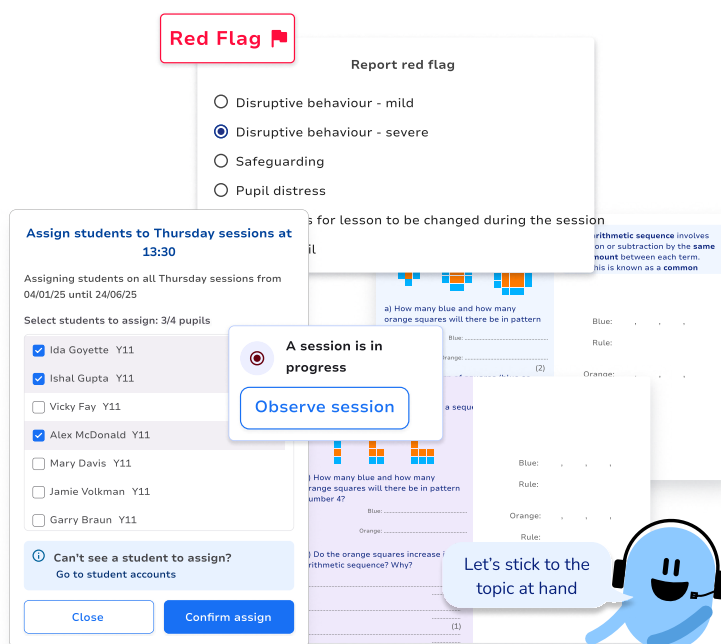
- ✓ Are lessons generated by AI, or designed by qualified teachers and curriculum experts?
- ✓ What structure do the lessons take? Is there a clear progression from modelling to guided practice to independent application?
- ✓ Does the content follow the national curriculum and GCSE specifications? Can it be aligned to our school's scheme of work?
- ✓ How often is the content reviewed and updated?

Pedagogical design

- ✓ Does the AI engage students in dialogue – asking them to explain their thinking and reason out loud – or does it primarily mark answers as right or wrong?
- ✓ How does the system handle misconceptions? Does it identify the underlying error and address it, or just flag an incorrect answer?
- ✓ Does the AI scaffold learning by breaking problems into steps and providing hints, or does it answer a set number of attempts?
- ✓ Is the tutoring spoken, typed, or a mix? What evidence supports that choice for your target age group?

Safeguarding and data protection

- ✓ What checks are in place to prevent the AI from generating inappropriate or off-topic content?
- ✓ Are sessions recorded? Who can access them, and how are concerns flagged and escalated?
- ✓ How is student data stored, and for how long? Is it used to train or improve any part of the AI model?
- ✓ Do you have a published AI policy that we can share with parents and governors?
- ✓ Can we control when students access the platform to prevent unsupervised use?



Teacher oversight and integration

- ✓ How do teachers track or influence the content each student receives?
- ✓ Can teachers view session summaries or recordings to understand how a session went?
- ✓ Can we switch focus areas (e.g. from algebra to geometry) quickly if students' needs change?
- ✓ What support do you offer if a teacher notices repeated misconceptions that the AI is not addressing?
- ✓ How does the platform fit into a busy school timetable? How flexible is the scheduling?

Cost-effectiveness

- ✓ What is the pricing model – per student, per session, or a flat annual fee?
- ✓ What is included in the price? Is onboarding, training, and ongoing support covered, or are these additional costs?
- ✓ How many students can we realistically support within our budget?
- ✓ What devices and internet bandwidth are required? Is the setup compatible with what we already have?
- ✓ How often do you release content updates or new features, and are these included?

“Skye delivers the maths teaching while I act as a facilitator. This setup adds capacity without increasing workload and allows our maths teachers to focus on classroom teaching.”



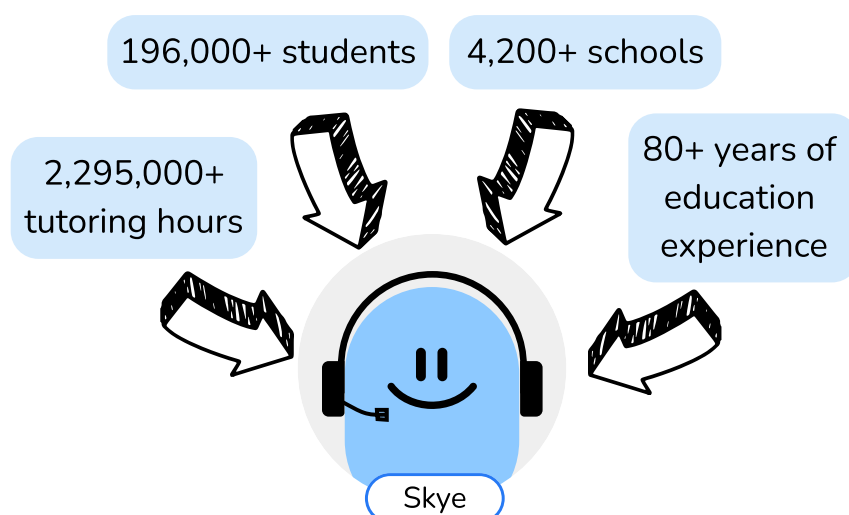
Gareth Barratt, Key Stage 4 Director,
Richard Rose Central Academy



Evidence-based AI maths tutoring from Third Space Learning

Here's how Third Space Learning's AI maths tutor, Skye, delivers against the six criteria.

Built on a decade of one-to-one maths tutoring experience, Skye is a purpose-built spoken AI tutor, designed from the ground up to deliver structured, curriculum-led maths tutoring through spoken dialogue.



How Skye meets the evaluation criteria

Here's how Skye delivers against each of the six areas covered in the evaluation framework.

“What's stood out most is how well it works across the full ability range. Higher attainers find it challenging, middle attainers can work confidently through the content, and lower attainers, who often struggle most with maths, are supported without feeling overwhelmed.”



Nicola Caldwell, Deputy Headteacher,
The Salesian Academy of St John Bosco

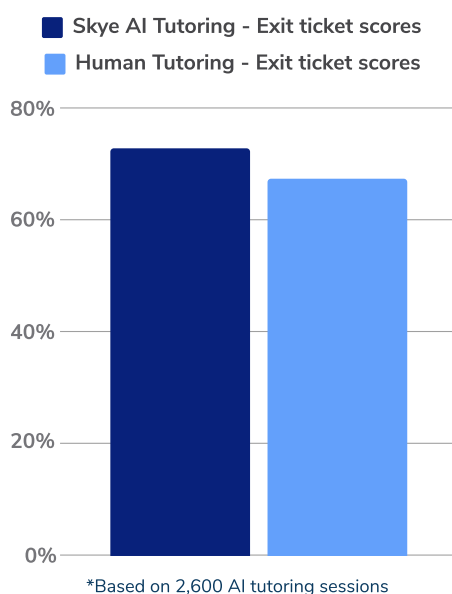


1 Proven impact on learning

In 2025, Educate Ventures Research conducted an independent evaluation of Skye, led by Professor Rose Luckin, analysing 9,320 AI tutoring sessions delivered to primary schools. Skye's pedagogical approach for secondary uses the same scaffolded, dialogue-led design.

- ✓ **Within-session learning:** The evaluation measured how well students understood the material by the end of each lesson compared to the start. It looked at learning gains within sessions, rather than long-term attainment or standardised test performance. Across the 9,320 sessions analysed, students answered 34% of diagnostic check-in questions correctly at the start of each lesson, rising to 92% on check-out questions by the end.
- ✓ **Student confidence:** 63.8% of students ended sessions more confident than they began.
- ✓ **Research alignment:** The evaluation confirmed that Skye's approach shows strong alignment with established research principles for effective AI tutoring.
- ✓ **Groups who benefit most:** Quiet or anxious students and those needing immediate consolidation after classroom teaching benefited particularly from working with Skye.

Students using Skye outperform traditional tutoring in exit ticket data



[Educate Ventures Research](#) ↓

2 Curriculum alignment

Every lesson is written and reviewed by qualified teachers and maths curriculum specialists, then mapped to the national curriculum and GCSE specifications. None of the content is AI-generated.

- ✔ **Teacher-designed content:** Lesson content is rooted in more than a decade of curriculum work at Third Space Learning. Modules cover Year 7 catch-up and GCSE specification content, using the terminology students need to be familiar with at each stage.
- ✔ **Structured progression:** Lessons follow a spiral curriculum that reinforces in-class learning, helping students build procedural skills and conceptual understanding. Each lesson uses an “I do, we do, you do” approach – modelling a method, working through it together, then giving the student space to practise independently.

The screenshot displays the 'Sessions' interface for a student named Vicky Fay. On the left, a sidebar shows navigation options like Home, Sessions, Reports, and Admin. The main content area is titled 'Vicky Fay's learning objectives' and includes a progress report for 'Targeting GCSE Grade 6'. The progress report table is as follows:

Taught	Learning objective	Check In Question	Check Out Question	Confidence Change
✔	Calculating Averages from Tables	Incorrect	Correct	😊
✔	Compound Measures	Correct	Incorrect	😞
✔	Estimating	Incorrect	Correct	😐
○	Factorising Quadratics (Coefficient Equal to 1)			
○	Working with $y = mx + c$			
○	Applying Pythagoras' Theorem			
○	Trigonometry: Using SOHCAHTOA			
○	Forming and Solving Linear Equations			
○	Solving Linear Simultaneous Equations			

On the right, a lesson slide titled 'Let's go through it together' shows two prisms, A and B. Prism A is a triangular prism with a base of 8cm and a height of 6cm. Prism B is a rectangular prism with a base of 8cm, a depth of d cm, and a height of 9cm. The slide includes the following text and formulas:

Prism A has half the volume of Prism B.

Area = cm^2 Area = cm^2

Volume of Prism A = cm^3

Volume of Prism B = cm^3

Find the depth of Prism B. $d = \text{cm}$

Navigation controls at the bottom of the slide show a sequence of numbers 1 through 10, with 3 highlighted.

3 Pedagogical design

Skye is a spoken AI tutor. Students speak to Skye and Skye speaks back, creating the kind of back-and-forth dialogue that research identifies as central to effective tutoring.

- ✔ **Adaptive teaching:** Skye identifies misconceptions in students' spoken responses and tailors its next steps accordingly. For each misconception, Skye provides scaffolded hints to help students arrive at the answer independently, rather than simply giving it to them.
- ✔ **Dialogue-driven tutoring:** Rather than marking answers as right or wrong, Skye engages students in conversation, encouraging them to reason out loud and practise problem-solving strategies. This spoken interaction helps students articulate their mathematical thinking, strengthening understanding and making it easier to recall.
- ✔ **Research-based methods:** Lessons use scaffolded steps, the CPA (Concrete, Pictorial, Abstract) framework, and regular checkpoints for understanding. The pedagogical approach aligns with the framework for effective AI tutoring: scaffolded learning with gradual hints, active recall and spaced repetition, interleaving, error correction and reflective feedback, and cognitive load management.

Example Third Space Learning lesson showing Skye's turn and the student's turn

4 Accessibility and inclusion

Skye's spoken interaction means students do not need to read or write to participate fully in a tutoring session. This makes it particularly effective for:

- ✓ **Students with SEND:** Lesson slides are designed to be minimal, uncluttered, and reduce cognitive overload by using a blur function, so students focus on the relevant section of the slide. Students can ask Skye to repeat or rephrase questions and explanations they do not understand.
- ✓ **EAL students:** Spoken dialogue allows students to engage with mathematical concepts without the added barrier of reading and writing in English. Conversational interaction supports language development alongside maths learning.
- ✓ **Students who lack confidence in literacy:** For students who can reason mathematically but struggle to express that reasoning in writing, spoken tutoring removes the barrier and lets them show what they know.

5 Safeguarding and data protection

Student safety

- ✓ **Guardrails and focus:** Skye's spoken tutoring is restricted to specific lesson content, with controls that keep dialogue on topic. It is not a general-purpose chatbot and cannot be used to discuss anything outside the lesson.
- ✓ **Recorded sessions:** Every session is recorded for potential review, ensuring that any concerns are investigated. Sessions include an automated red flag system for identifying inappropriate, harmful, or safeguarding-related content.
- ✓ **AI policy:** Third Space Learning provides a comprehensive AI policy which schools can also adopt for their own use, clarifying safety measures and outlining procedures for ongoing checks.

Data protection and GDPR compliance

- ✓ **Secure data handling:** Student information and session recordings are stored in compliance with GDPR requirements, and access is limited to authorised staff.
- ✓ **Limited data usage:** Third Space Learning does not use personally identifiable student data to train Skye's underlying AI.
- ✓ **Policy clarity:** The AI policy details exactly how student data is handled, stored, and retained, ensuring schools have a transparent record of procedures.

Red Flag 

Report red flag

- Disruptive behaviour - mild
- Disruptive behaviour - severe
- Safeguarding
- Pupil distress
- School asks for lesson to be changed during the session
- Wrong pupil

User access controls

- ✓ **Custom scheduling:** Teachers registered to the Third Space Learning dashboard can assign sessions within safe time windows, minimising the chance of unsupervised use.
- ✓ **Teacher-led setup:** Teachers arrange and oversee sessions; students cannot schedule them independently.
- ✓ **Clear admin controls:** The dashboard differentiates between accounts, allowing staff to manage student access without making system-wide changes.

6 Teacher oversight and integration

Skye is designed to work alongside teachers, not independently of them.

- ✓ **Progress tracking:** Teachers have access to dashboards showing students' attendance, progress on learning objectives, and any flagged areas of difficulty. Session reports highlight whether students have understood the learning objective and where they need further support.
- ✓ **Live session access:** Staff can access live student sessions to review how individual students responded to questions, spot trends, and intervene if concerns arise.
- ✓ **Flexible scheduling:** Because Skye does not depend on tutor availability, sessions can be scheduled at 5-minute intervals and rearranged at short notice, expanding or scaling back as needed.
- ✓ **Teacher control over content:** Teachers can reorder lessons within each programme to tailor the lesson sequence for each student, choosing to prioritise gaps or consolidate recent classroom learning.

7 Cost-effectiveness

Schools can purchase Skye as a low-cost yearly plan that gives unlimited sessions, allowing schools to support as many students as they need for one affordable cost. This differs from a per-session traditional tutoring model, which can become very expensive as demand grows.

“Pupils quickly learned how to interact with Skye, using the prompts, asking for help when they didn't understand, and responding confidently to the instant feedback.”



Nicola Caldwell, Deputy Headteacher,
The Salesian Academy of St John Bosco

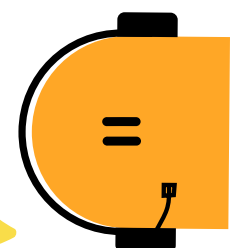


One-to-one sessions per week	Cost per year with other providers*	Cost per year with Skye**	Average saving
5	£8,100	£5,000	38%
10	£16,200	£5,000	69%
15	£24,300	£5,000	79%
20	£32,400	£5,000	85%
30	£48,600	£5,000	90%
60	£97,200	£5,000	95%

*Based on an average price of £45 per student per session

**Annual cost for Skye in secondary

The key advantage of Skye's pricing model is reach: a school can support every student who needs one-to-one maths tutoring, all year, for one predictable cost. With traditional per-session tutoring, schools are forced to make difficult choices about which students receive support.



“A major benefit of the unlimited package is the ability for students to log in at home, something we've never had before. While we are still in the early stages, we view this as a vital area for growth. We are constantly encouraging students to launch their own sessions as we move closer to GCSE exams.”



Gareth Barratt, Key Stage 4 Director,
Richard Rose Central Academy





“It’s straightforward, targeted, and it doesn’t create extra workload. If you’re thinking about AI tutoring, I would definitely recommend it.”



“It’s more flexible and less stressful to set up; you’re not restricted by dates, times or tutor availability, and students can access it at home, which we’ve never had before. Even students who were saying, ‘I’m not talking to a robot,’ now come in and get on with the learning it as they’ve become more comfortable engaging.”

One of our biggest hurdles in maths is student confidence; many students arrive with a belief that they "can't do it," which quickly turns into avoidance. While our maths outcomes have been improving over time, shifting this mindset remains a challenge.

We’ve been using tutoring for nearly seven years, including during the National Tutoring Programme. Three years ago, we moved to Third Space Learning and preferred it to other options, so when Third Space introduced AI tutoring, we decided to continue with it

About Richard Rose Central Academy

- Phase:** Secondary
- Location:** Carlisle, North of England
- Size:** 1,000+ pupils
- Trust name:** The Richard Rose Trust

Intervention details

Year group:

Year 11

Intervention goal:

- Support lower achievers
- Close learning gaps
- Increase engagement
- Increase confidence
- Prepare for GCSEs

Key features:

- AI maths tutoring
- Unlimited sessions
- Unlimited pupils
- Personalised learning
- Reliable tutoring
- Ease of setup

I was a bit unsure at first; I didn’t quite know what to expect, but after seeing a demonstration, it was clear why the move to AI made sense. It felt like the direction education was heading, and we wanted to be involved early to see what it could offer our students.

One of the biggest advantages for us has been reliability. With online tutoring in the past, we’d had issues with engagement, connection problems, and sometimes tutors who didn’t really hold students’ attention. AI removes a lot of those variables and keeps the focus firmly on the student.

Currently, we run sessions on Mondays during our "Period 4". This is a mandatory 45-minute additional period at the end of the school day, specifically for Year 11 students. I run these sessions myself; I’m not a maths specialist, which highlights a key benefit: Skye delivers the maths teaching while I act as a facilitator. This setup adds capacity without increasing workload and allows our maths teachers to focus on classroom teaching.

From a staff point of view, Skye has been easy to manage, with straightforward setup and very little ongoing input required.

“For staff, it’s straightforward and easy. For students, it’s quick, easy and targeted.”

That shift has been one of the highlights for me. Once students get past that initial hesitation, they get on with the learning.

A major benefit of the unlimited package is the ability for students to log in at home, something we’ve never had before. While we are still in the early stages, we view this as a vital area for growth. We are constantly encouraging students to launch their own sessions as we move closer to GCSE exams.

AI tutoring isn’t about replacing teachers, but it is a practical, scalable way to support students, and for us, it’s been a positive step forward.

I’d recommend Skye to any school considering tutoring. It is more flexible and less stressful to set up than traditional tutoring because you aren’t restricted by a tutor’s availability or rigid time slots. What have you got to lose by trying it?

Do you have a group of students who need a boost in maths this term?

Get in touch at:

- thirdspacelearning.com
- 0203 771 0095
- hello@thirdspacelearning.com



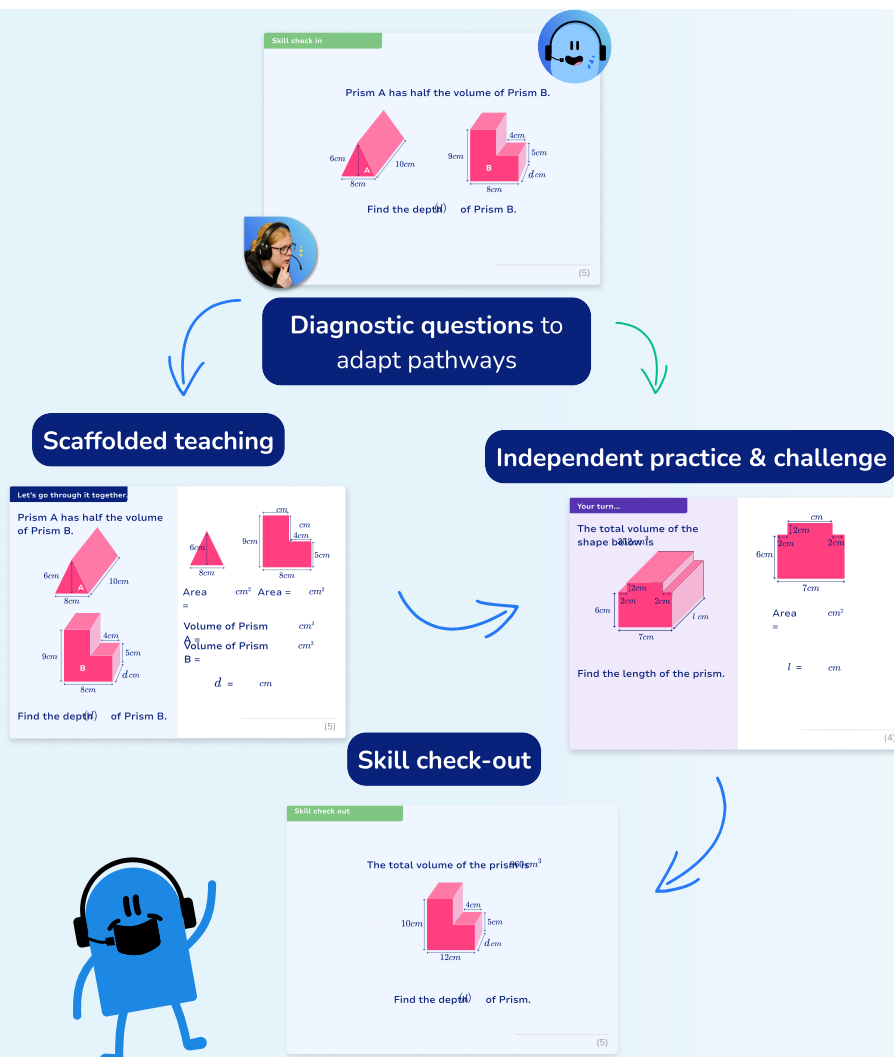
Next steps

Making the right choice for your school

AI tutoring can be a powerful tool in supporting students who need extra help, but it is not a standalone solution. Like any intervention, it works best when combined with strong classroom teaching and regular oversight from teachers and school leaders.

Before committing to a platform, evaluate its suitability in your setting. Collaborate with your maths department, gather their feedback, and review student outcomes carefully. The evaluation toolkit in this guide is designed to help you do exactly that.

The goal is always to enhance your current teaching strategies, not replace them. The right AI tutoring solution can help you deliver more personalised learning to more students, within the constraints of a busy school and a tight budget.



Glossary: Common AI terms explained

This glossary covers terms heads of maths and senior leaders may encounter when researching or evaluating AI tutoring tools. Definitions are written in plain language and are not specific to any one provider.

AI tutoring

- An approach to delivering educational support through artificial intelligence systems. AI tutoring ranges from simple question-and-answer tools to structured, curriculum-led programmes that replicate the principles of one-to-one human tutoring.

Chatbot

- A software application designed to conduct conversations with humans through text. In education, chatbots are sometimes used to answer student questions, but they typically lack the structured lesson design and pedagogical framework of purpose-built AI tutoring systems.

Cognitive offloading

- When a student relies on a tool to do the thinking for them rather than developing their own understanding. For example, asking an AI to solve a problem rather than working through it step by step. This is a recognised risk with on-demand AI homework help tools and a concern raised by the Department for Education in its work on AI in schools.

Guardrails

- Automated or manual checks that keep an AI tutoring session focused on lesson content and prevent inappropriate or harmful output. Guardrails might include content filters, topic restrictions, and flagging systems that alert staff to unexpected interactions.

Hallucination

- When an AI system generates information that sounds plausible but is factually incorrect. This is a known limitation of large language models and is one reason why teacher-designed lesson content (rather than AI-generated content) is considered more reliable for structured tutoring.

High-dosage tutoring

- Tutoring that is delivered frequently – typically two to three sessions per week – over a sustained period. The Education Endowment Foundation’s evidence shows that high-dosage tutoring produces the strongest results, particularly for disadvantaged students. The term is widely used in US education policy and is increasingly referenced in UK policy discussions.

Scaffolding

- A teaching strategy where support is gradually reduced as a student develops understanding. In AI tutoring, scaffolding might involve breaking a problem into smaller steps, providing hints, or modelling a method before asking the student to try it independently.



THIRD SPACE
LEARNING

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

 thirdspacelearning.com

 0203 771 0095

 hello@thirdspacelearning.com