



THIRD SPACE
LEARNING

The Secondary Maths Subject Leader Toolkit

Adaptable tools, templates and action plans to
guide you step by step to success in your role as
Head of Maths

SLT Guides

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Introduction

Congratulations on your head of maths role! This guide is designed for new heads of maths but even if you've been at it for a while, we hope you'll be able to find in here a whole range of suggestions and tools to try out in your school.

We know it can be a daunting prospect so, before you start, don't forget, **you're not alone**. While the role of head of department belongs to you, you are supported in your role by other members of your department, such as deputies or key stage leaders, and by the teaching staff who will be implementing the strategies you have chosen.

As the head of department, you'll want to ensure your school's maths department is as strong as possible, and be fully prepared for any Ofsted visits. Completing the tasks recommended in this document will put you in a strong position to confidently discuss maths teaching within your school.

We've laid out the tasks in a suggested order, but you may not feel all tasks are relevant or that a different order suits your school better. What matters most is gaining a good understanding of where the maths department currently is, and making a clear plan to ensure it's the best it can be for your staff and students.

Why we've made this guide

At Third Space Learning we aim to help close the maths attainment gap.

As part of our mission, we speak to thousands of secondary school Maths Leaders and Headteachers every year about how we can help raise maths attainment in their schools through **one to one support from our AI maths tutor Skye** and hundreds of **free downloadable maths resources**.

Since we started in 2013, we've learnt a lot about how the most successful subject leaders manage their time and make sure they're implementing strategies that have the greatest impact on their students and staff.

We've collated everything we've learnt about what works best when it comes to leadership of mathematics into this guide.

Reviewing your data

When you're setting up the maths department for success, the best place to start is reviewing your existing data. Review the maths assessment and progress data for your school, particularly the latest set of examination results. This is particularly crucial if you're starting your new post at the start of an academic year, as the previous year's results will feed into departmental priorities.

Identify groups of students who are achieving and those who may need support. You may filter groups by:

- ✓ SEND
- ✓ Pupil Premium
- ✓ Gender
- ✓ Those on key grade borderlines

Think about the general picture of the previous year's examination results, and how you will communicate this to your new team. Consider results as belonging to the department, rather than individual teachers.



Read: [GCSE Results 2023: Information And Next Steps For Teachers And School Leaders²](#)

7 min read

Assess your intervention needs

Begin to consider strategies to target gaps you have identified, including targeted teaching and interventions.

Effective interventions should be timely and targeted, students benefit more from a few intensive sessions of personalised support on a 1-1 or small group basis, than from regular additional lessons over an entire year.

Interventions are most effective throughout a student's entire secondary school journey, rather than just in their final exam years.

Once identified, address small gaps rapidly before they widen. Some schools implement same - or next-day intervention using a dedicated subject specialist.



Since 2013, 4,000+ primary and secondary schools have chosen Third Space Learning to provide personalised one to one maths support for the students who need it most - without adding to staff workload.

- **Targeted:** Close learning gaps for every student who needs it with unlimited AI tutoring
- **Personalised:** Every student begins with a skill check in assessment to identify gaps; AI tutor Skye adapts each lesson based on students' assessment answers
- **Consistent:** Students learn with Skye each week, each using our bank of qualified teacher-created lessons
- **Scalable:** Multiple students receive personalised one to one tutoring at once
- **Affordable:** 90% cheaper than other maths tutoring providers



“We analysed the data for our GCSE pupils and found that students who had attended Third Space Learning sessions improved 1.19 of a grade on average - 0.45 more than those who didn't have Third Space Learning sessions.”



Andy Appleford
Maths Director, Chorus Education Trust

An example Third Space Learning tutoring lesson slide



“Tuition is one of the best evidenced interventions we have to support disadvantaged pupils' attainment.”

Professor Becky Francis, Chief Executive, Education Endowment Foundation

Key paperwork

Whole-school policies

As head of maths, you are often the first port of call for your team for a variety of issues, so check that you are familiar with applicable whole-school policies, including:

- ✓ Safeguarding policies
- ✓ Behaviour management policies
- ✓ Reporting and assessment procedures.
- ✓ School improvement plan (SIP)
Acronyms may vary, but you're looking for the document that details school-wide priorities for improvement for the next academic year. Maths is a key element in this, including expected outcomes and actions.

Departmental policies

Many schools also have templates for subject-specific development priorities - this may be titled self-evaluation form (SEF) or subject development plan (SDP). Whatever it's called, ensure you're familiar with your subject's priorities for the academic year.

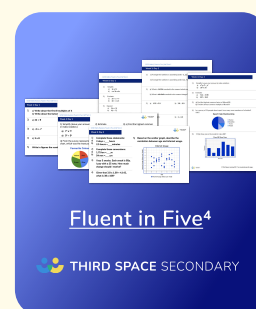
Review important departmental policies, especially those policies covering:

- ✓ Curriculum intent or vision statement
- ✓ Common approaches to calculations or methods within the department
- ✓ Marking and feedback
- ✓ Homework



"Teachers consistently built in opportunities for pupils to rehearse knowledge. For example, they would start lessons with a 'Fluent in Five' approach. Schools were increasingly adding a short, discrete session of extra practice. This usually took place in the afternoon and included mental arithmetic."

Coordinating mathematical success: the mathematics subject report



Ensure you are clear about any urgent updates or changes to these policies and communicate these to department staff in a timely manner.

At this stage, you may identify changes that you want to make to departmental policies. Large overhauls of policy should be left until you are more familiar with your department. However, this can be a good opportunity to make small tweaks, particularly if you can identify any minor changes that reduce staff workload without negatively impacting students.

In some cases, these plans may not have been updated for the new academic year, read through the old plans and start to consider areas you may want to focus on in the next academic year. Information and ideas from your new department will be invaluable here.

Government guidance and Ofsted recommendations

Ensure you are up-to-date with government guidance and programmes of study for the relevant Key Stages in your setting. This should include a brief review of Ofqual guidance for external examinations.

If you have not already done so, familiarise yourself with the latest subject specific recommendations from Ofsted, as some may be relevant to your school. The latest report, published in July 2023, is titled Coordinating Mathematical Success.



Read: [Ofsted Mathematics Subject Report: Coordinating Mathematical Success³](#)

12 min read

The key takeaways from this report are:

- ✓ There has been a positive shift in the quality of mathematics education, with considerable improvements to curriculum planning
- ✓ Schools are increasingly using support of professional networks to disseminate good practice
- ✓ At secondary, recruitment and retention of subject specialists is recognised as a major issue

Your school's maths provision

Audit your maths provision to assess your departments strengths and areas of development. This audit will be useful when you start to write an action plan.

You can print out and use the sample audit on page 16 of this document or use it as inspiration to create your own.

The Secondary Maths Subject Leader Toolkit

THIRD SPACE LEARNING

Secondary School Self Assessment: Maths Audit

Consider each statement in the audit carefully and decide on a RAG rating. Highlight each statement accordingly and make any notes that come to mind. If you find any points you are not sure about, ask other members of staff.

Red = An area to be developed
Amber = More development required to ensure consistency
Green = Consistently strong

	Notes	RAG
1. Vision and Policy		
We have a clear maths vision for teaching.		
The vision is understood by staff.		
The vision is understood by students.		
Our school is ambitious when it comes to the mathematics education of students.		
We articulate how we want students to develop as mathematicians.		
The maths policy is rigorous and up to date.		

thirdspacelearning.com

Helping schools close the maths attainment gap through targeted one to one teaching and flexible resources 14

Always keep in mind that your primary goal should be to provide all your students with the best maths experience possible.

Feedback from department members at this stage is crucial - if you're an external appointee, the department you're joining will have a far better understanding of current provision than you can glean in a couple of weeks.

You could involve the department in this process by allocating time at the start of a term or year to complete a short analysis, using the template SWOT (strengths, weaknesses, opportunities and threats) analysis on **page 15**.

You may not be able to fully audit your department's provision within your first few weeks, so it may be more useful to complete the audit as a working document during your first term or even year in your new role.

Teaching resources

Concrete resources

Schools tend to have a lot of old or broken resources stored away. Auditing your resources will help you to understand the type, quality and quantity of resources you have; **we have included a suggested template on page 16.**

You can then plan for what else you need. By having a 'wish-list' of resources, you can prioritise and budget accordingly. If you have a large department, you could delegate responsibility for resource management and ordering to a TLR or UPS holder.

Each class needs an appropriately sized set of particular resources - mini-whiteboards, calculators and spare equipment are pretty universal, but your department may have additional resources in this category. For less frequently use resources, a smaller number of departmental sets may be more appropriate and can be stored centrally.



Read : [How Algebra Manipulatives Can Transform Engagement Within Your Secondary Maths Lesson⁵](#)

8 min read

Digital resources

Review any digital or online resources your school subscribes to. Audit what you get access to, how often the resources are used in school and by whom. Again, someone in the department may already have responsibility for this, or this could be delegated.

Staff may access resources from a particular website or free provider, or they may using their own paid-for account. Ask teachers which resources they already find useful and use before you invest in something totally new.



Secondary schools have access to a full library of free downloadable resources in the [Third Space Learning Secondary Resource Hub⁶](#), including:

- [GCSE Maths Papers](#)
- [GCSE Worksheets](#)
- [Revision Cards](#)
- [Diagnostic Questions](#)
- [Revision Guides](#)
- [SLT Guides \(like this one!\)](#)
- [Revision Mats](#)
- [Exam Questions](#)
- ... and more
- [Daily Practice](#)
- [Revision PowerPoints](#)

Your team

Your first priority in this area should be to work out which members of staff hold TLR posts and what their responsibilities are.

Departments can be structured differently, but there are often coordinators for each Key Stage, and you may have a second-in-department or deputy subject leader. If possible, aim to meet with them before term starts, as they can provide a more detailed overview of the department's current position.

More generally, once you have started in your new role, get to know the wider team and begin to identify strengths and working preferences. Members of staff with responsibility or those on UPS may already have roles within the department (e.g. liaising with resource providers, organising external events like the UKMT, Year 7 transition).

You may also have staff members who have untapped potential in the department, for example, if you've got someone who's enthusiastic about personal CPD or educational research, consider how you can disseminate this to the wider team.

Additionally, find out whether any members of your department hold responsibility elsewhere in the school. For example:

- ✓ Special Educational Needs Coordinator (SENDCO)
- ✓ Pastoral roles such as Head of Year
- ✓ Senior Leadership Team (SLT)

Be aware of any pressure points specific to their roles, such as meeting clashes or reporting deadlines.



Read: [The 7 Principles Of Effective School Leadership⁷](#)

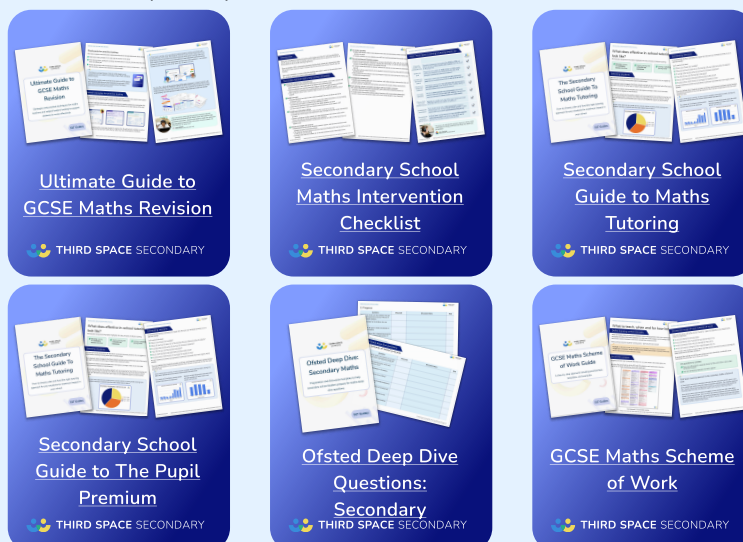
6 min read

Key deadlines

- ✓ Be aware of all crucial deadlines, including exam entries, reports and whole-school assessment points. Key Stage coordinators, if you have them, should be able to help with the reporting and assessment schedules for their year groups.
- ✓ Keep a note of any key deadlines or documentation through the year, including what needs to happen and which members of staff that involves. Use this in the next academic year to reduce the pressure of remembering exactly what process needs to happen when.
- ✓ Find a system that works for you to keep track of tasks you need to complete. This could be a pen-and-paper to-do list, a plethora of Post-Its or an electronic version. There are a wide variety of time organisation strategies and listing techniques you can try, and different things work for different people. However, it's important to be able to record tasks quickly once they've been raised - don't rely just on your memory!
- ✓ Part of this organisation process involves disseminating key information to your team from senior leadership, and keeping them abreast of school-wide strategies and priorities. Rather than use departmental time for this, you could get in the rhythm of producing a short email or bulletin at the start of each week with important updates and upcoming deadlines.



Third Space Learning has created a number of free leadership guides to help secondary school maths teachers and heads of maths to get strategic and organised around their key responsibilities. Take a look at what's available here:



Teaching and learning

Stepping into a head of department role often involves a lot of administrative juggling that will likely take up a significant amount of your cognitive energy in the first few weeks. However, as you settle in, you try to maintain focus on teaching and learning as a priority, both within your classroom and within the department.

Assess your own knowledge and confidence

- ✓ Do you feel confident in your role as head of department?
- ✓ How much CPD have you had?
- ✓ Do you keep up to date with research and new ideas in maths?
- ✓ Are you a member of a Maths Hub or professional network? Networking is an excellent way to find people to support you and share ideas..

Conduct informal observations

Your school may employ a formal lesson observation schedule as part of its performance management strategies. However, here we're talking about just getting out into the department, popping in and out of classrooms and doing some informal observations. These can be more relaxed and the focus should be on the learning and mathematical content of lessons.

Wander around the corridors, both during lesson time and during changeover. This provides an opportunity to support subject staff when dealing with behavioural issues, but also gives you some key information about engagement with learning and student attitudes to maths within the school.

The main function of these observations is to gather information, particularly to see if there are any whole-department patterns. Include observations of strengths and what's working well.

Assess the knowledge of the staff

If you make sure they know you want to support them, people will often be more honest. Include support staff in this process.

- ✓ How confident and experienced are your team?
- ✓ How often have they had high quality CPD?
- ✓ Are Early Careers Teachers (ECTs) adequately supported to improve their subject knowledge?
- ✓ Is CPD provision subject-specific or more generic? Generally in Maths, subject-specific CPD will be far more valuable than whole-school provision.

Departmental meeting time

The most productive use of departmental meeting time is to focus on curriculum provision, teaching and learning and maths-specific CPD. Consider whether agenda items relating to logistics, policies and procedures could be emails instead.



“During our second day of the Ofsted inspection, one of the inspectors observed a Third Space Learning session and was so impressed that she actually phoned Third Space Learning that day and introduced their one to one tutoring into her school!”



Headteacher, Trent Church of England School

Ofsted's reflections on Third Space Learning as part of one school's maths intervention strategy.

Social media

Social media is a powerful tool. By joining Facebook groups and following people on Twitter, you can quickly gain up to date information, as well as a place to ask questions to others.

We would recommend joining Facebook groups for leaders such as 'Primary Maths Subject Leaders', 'Primary School Leaders' as well as the Third Space Learning's Facebook page.

Follow Third Space Learning on LinkedIn for free maths leadership maths content



@OutwoodKirkby

Another very busy after-school session today with our Year 11 mathematicians

Students were engrossed in their personalised classes that are being delivered by [@thirdspacetweet](#)



PIC•COLLAGE

Follow us on Twitter for free maths resources and intervention support [@thirdspacetweet](#)¹⁰



Staff development and communication

Sharing ideas, successes and questions is very important to the development of staff. After auditing the maths provision and discussing with your department, you should have a good idea of areas you need to work on.

- ✓ **Offer CPD and training during INSET days and departmental meetings.**
- ✓ **Remember that CPD does not have to be ‘formal’ or necessarily involve external agencies** - a conversation during a departmental meeting about teaching strategies for an upcoming topic can be very valuable.
- ✓ **Tap into strengths in your department** - for example, if you have a team member who has a particularly good questioning style, ask them to give a short presentation and demonstrate to others in the team.



Read: [Effective Questioning In The Classroom⁹](#)

5 min read

- ✓ **Consider carefully how staff development is monitored.** The processes here may be partially dictated by your school's performance management policy, but consider whether frequent formal observations could be replaced by department-wide shorter observations, such as via a scheduled learning walk
- ✓ **Consider specific foci for observations or learning walks** - these could include any key development priorities identified in collaboration with your team
- ✓ **Peer observation is another low-stakes method for involving the whole team in teaching and learning improvement**, particularly if this can include paired planning and delivery of these planned materials.



Westfield School
Andy Appleford, Maths Director,
Chorus Education Trust

“We’ve created a culture of success around revision that’s helped students make more progress”



I analysed our data to look at the progress that the students made. After 15 weeks, our students **improved 1.19 of a grade on average**, 0.46 more than those who didn't have the sessions.

We had a group of students who needed more support but motivation was low

Part of the battle with our students is showing them that by working and revising they will be more successful. Creating that culture of success around revision is essential.

We've now helped to show them that revision works and it's worth spending their time on.

About Westfield School

- 📍 **Phase:** Secondary
- 📍 **Location:** Sheffield
- 👤 **Size:** 1173 students
- 📄 **Trust name:** Chorus Education Trust

Intervention details

Year group:

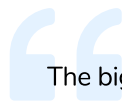
Year 11

Intervention goal:

Build confidence Improve GCSE grades

Key features:

Ease of setup Diagnostic assessment
GCSE revision Lesson content



The biggest impact of Third Space Learning tutoring was showing pupils that we care about them and that they're important enough to put on something like this; we think it's worth them spending that time revising because we care about what they're going to get.

They can see that they're getting better

With the pre and post-programme assessments, they see for themselves that revision works. What worked really well was that it was a consistent time every week; students have a weekly check in and a chance to feel successful – that has a big impact.

It made them realise that this one session a week isn't their full revision, it's just an aspect of it, which has led them to revise more.

It's purposeful and useful revision led by an experienced tutor who can engage with the student.

As soon as their free headsets are on, that 45 minutes of revision is really productive.

The work they were completing was of a really good standard. The explanations were really clear and the visuals were really good.

Our data proved it was worth it and that students were making more progress

I analysed our data; after 15 weeks, the students improved 1.19 of a grade on average - 0.46 more than those who didn't have the sessions.

One student in set 3 hadn't got a 4 in any of his 3 mocks. He turned up to every session and would regularly say thank you after... and then he got a 4 and it was brilliant!

If I could I would put this on for every student each week. To get a regular one to one session like this is amazing.

Maths success story

Departmental SWOT analysis

	Positive	Negative
Internal	Strengths What does the maths department currently do well? What are you proud of?	Weaknesses Where are our current areas for improvement? What would you change?
	e.g. problem-solving embedded in SoW for KS3 and taught regularly	e.g. improve use of questioning in the classroom at KS4
External	Opportunities What can we tap into to help us accomplish our departmental goals?	Threats What might impact our ability to make changes, including external factors?
	e.g. use of external providers for CPD and support	e.g. limited departmental budget for purchasing new resources

Resource Audit

Resources owned	Notes (quality / quantity)	Wishlist
e.g. textbooks, two-sided counters, Cuisenaire rods.	e.g. 20 books per year, out of date, shared resource	e.g. up to date textbooks, whole class sets

Secondary School Self Assessment: Maths Audit

Consider each statement in the audit carefully and decide on a RAG rating. Highlight each statement accordingly and make any notes that come to mind. If you find any points you are not sure about, ask other members of staff.

Red = An area to be developed

Amber = More development required to ensure consistency

Green = Consistently strong

	Notes	RAG
1. Vision and Policy		
We have a clear maths vision for teaching.		
The vision is understood by staff.		
The vision is understood by students.		
Our school is ambitious when it comes to the mathematics education of students.		
We articulate how we want students to develop as mathematicians.		
The maths policy is rigorous and up to date.		

	Notes	RAG
2. Monitoring and Evaluation		
We have a clear understanding of monitoring and evaluation.		
Overall areas of strength are identified.		
Overall areas to develop are identified.		
Areas of strength and development are shared with all staff.		
There is a true picture of maths in the school.		
Improvements have been identified over the last year.		
Improvements have been identified over the last 2 years.		
Improvements have been identified over the last 3 years.		
Causes for improvements are identified.		
We can explain to others our areas of development.		
The proportion of students achieving grade 4+ at GCSE is good.		

	Notes	RAG
The proportion of students achieving grade 4+ at GCSE is improving.		
Student performance at A Level is strong.		
Student performance at A Level is improving.		
The differences between groups of students are identified, actioned and monitored (including disadvantaged and/ or vulnerable students).		
There is evidence of setting high standards for all students.		
There are clear systems in place to find out what happens in the classroom.		
Students are involved in feedback.		
Work analysis is used as a valuable source of evidence.		
Data is routinely analysed to identify next steps in teaching and learning.		
Summative data is routinely analysed to identify next steps in teaching and learning.		
Formative data is routinely analysed to identify next steps in teaching and learning.		

	Notes	RAG
3. Curriculum		
We are confident in our understanding of the national curriculum and relevant exam syllabi for maths.		
There is a consistent whole school calculation approach and policy.		
There is an agreed scheme of work used in KS3.		
There is an agreed scheme of work used in KS4.		
There is an agreed scheme of work used in KS5.		
Schemes of work are fully-resourced.		
Maths misconceptions and errors are planned for and addressed by all staff confidently.		
There is evidence that the maths curriculum is being taught in exciting and engaging ways.		
Planning demonstrates effective curriculum coverage.		
The maths curriculum focuses on depth and breadth.		

	Notes	RAG
Every student has an equal opportunity to progress from their starting point.		
Needs of individual learners are addressed.		
Planning ensures students develop a conceptual understanding of maths.		
Skills are developed to ensure students can find methods to solve familiar problems and creatively tackle more complex or unfamiliar problems.		
Maths is taught across the curriculum.		
There are clear department-wide strategies for improving teaching, learning and assessment of maths.		
A decision has been made on how homework is set and used.		
Homework encourages, enthuses and develops understanding.		
Homework is set with clear, relevant objectives.		

	Notes	RAG
4. Assessment		
We have a clear approach to assessment of, for and as learning.		
Assessment informs and enhances learning.		
Assessment is accurate.		
Data is used effectively.		
Progress is tracked consistently.		
Data is evaluated and actions are taken as a result.		
Data is used to identify students who may benefit from intervention.		
Interventions are timely, targeted and short.		
Interventions are appropriately resourced.		
Maths marking is meaningful, manageable and motivating.		
Feedback to students is provided in various ways.		
Peer and self assessment is evident.		
Verbal feedback is used.		
Staff know how and when to moderate work.		

	Notes	RAG
5. The Maths Environment		
Maths is clearly visible in the department and around school.		
Resources are selected carefully to support learning.		
Concrete and pictorial resources are available to all students if required and as appropriate.		
ICT is integrated into maths lessons effectively.		
Staff know where maths resources are.		

	Notes	RAG
6. Promoting Maths		
There are high expectations set for all students in maths.		
High expectations are demonstrated, monitored and assisted.		
Maths is always an integral part of the school improvement plan.		
Staff are regularly updated with developments and changes in maths.		
Maths is seen as important, useful and fun by staff and students.		
All staff inspire and encourage confidence in maths.		
Communication with parents regarding maths is strong.		

	Notes	RAG
7. Professional Development		
Strengths and weaknesses in knowledge, understanding and subject-specific pedagogy have been identified.		
There is a professional development plan to address staff weaknesses.		
Staff are experts at asking a range of high quality questions to stimulate higher order thinking and conversations.		
Staff know how to give high quality verbal feedback.		
Any inconsistencies in the quality of maths teaching are tackled effectively.		
A range of teaching strategies have been developed to engage students.		
A range of maths teaching strategies have been shared with the department.		
Staff take responsibility for their own maths development.		
Staff have access to high-quality CPD and training.		

Maths Action Plan:

Subject leader(s):

Governor:

Objective	Success criteria	Monitoring: who, when	Monitoring: how	Budget requirements	Review (dated)

References

- | | |
|--|----|
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Looking to improve your school's maths results without stretching your budget?


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

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

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

Speak to us

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