



Mathematics
Mastery

Mathematics Mastery Primary

**Working hand in hand with schools to
deliver immediate impact and sustained
subject excellence**



Ark Curriculum+

Hello!

Welcome to Mathematics Mastery Primary.

In the decade since I founded Mathematics Mastery, there's been a transformation in UK maths education. I'm proud of the role Ark Curriculum Plus has played in that. As a member of the Ministerial Steering Group for Maths, I have shared our unique insights with the DfE and worked closely with Maths Hubs across the country, making a significant contribution to Teaching for Mastery.

Pupil achievement has steadily improved as these initiatives have taken root at a national level, yet too many schools lack the comprehensive support required to deliver consistent, high-quality maths teaching.

Our **subject excellence programme** fills that gap, providing the expert support and practical building blocks schools need to teach primary maths using the mastery approach.

Informed by extensive international research and practical insights into effective maths teaching, I devised the Dimensions of Depth: the pedagogical principles at the heart of our approach (see p19). We then developed a programme to support schools to implement these successfully, which we rigorously tested in Ark schools and beyond. We worked with the Education Endowment Foundation to validate the programme's impact, making Mathematics Mastery Primary a reliable path to transform outcomes in your school.

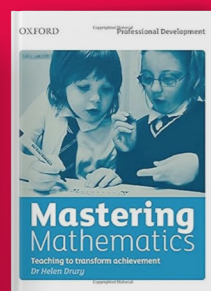
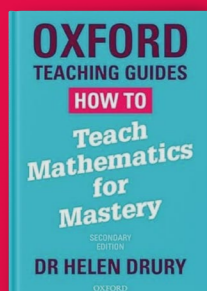
How does it work?

Success starts with confident teachers delivering brilliant maths lessons. That's why you'll have a dedicated subject expert guiding you through our 5-Step Improvement Process and your teachers will enjoy face-to-face induction training and flexible CPD. Plus, you'll have immediate access to the practical assessment, planning and teaching resources you need to embed Mathematics Mastery in the classroom.

Putting it all together, we enable your school to achieve and sustain **consistently excellent maths teaching**.

We partner with hundreds of schools, including some of the largest MATs in the country. I feel privileged to be working with so many incredible school leaders and teachers, united in a shared mission to help all learners make progress in maths, whatever their starting point. I hope you will join us!

DR HELEN DRURY
EXECUTIVE DIRECTOR OF EDUCATION



Put simply, what we do works!

Independent evidence, pupil results and feedback from partner schools shows our programme works.

Mathematics Mastery Primary has been shown by the Education Endowment Foundation (EEF) to give pupils on average **two months' additional progress** after one year on the programme*. This proof of impact is why the EEF is funding 100 subsidised places for new schools to join the programme in 2023-24. [Learn more.](#)

OUR PARTNER SCHOOLS AGREE THAT THE PROGRAMME HAS IMPACT:



It's having an impact on
pupil progress



It has deepened pupils'
mathematical thinking



Teachers' **subject knowledge** has improved

WHAT PEOPLE SAY

“

We've seen a significant change in the children's understanding and enjoyment of maths and strengthened subject knowledge and confidence among staff.

CLAIRE PETTMAN
ASSISTANT HEADTEACHER
ST STEPHEN'S CATHOLIC
PRIMARY SCHOOL

“

It's tailored to fit your needs and the journey it takes you on as a school almost guarantees you the results you want.

MARTIN BEESTON
DEPUTY
HEADTEACHER
PADDOX PRIMARY
SCHOOL

* The EEF report on their randomised controlled trial, showed that Year 1 pupils on the Mathematics Mastery Primary programme made on average two months of additional progress, when compared to pupils not on the programme. <https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/mathematics-mastery-primary>



Framework for success

The 2021 EEF School Planning Guide** highlighted that ‘the best available evidence indicates that **great teaching** is the **most important lever** schools have to **improve outcomes** for their pupils.’

To achieve powerful teaching that changes lives, teachers have told us they need to have strong subject knowledge, the best evidence-based pedagogies, rigorous assessment and effective planning, all working together.

Our Subject Excellence Programmes follow the AC+ 5-Step Improvement Process, which is based on over a decade’s experience of transforming results in one of the most respected MATs and hundreds of schools nationwide. Improvement is a journey – that’s why you will have a dedicated subject expert to guide you step by step, helping you achieve and sustain excellence.



<p>STEP 1 Plan</p> <p>You will receive a structured diagnostic call and your subject expert will help you to prepare an improvement plan to identify areas of focus to achieve the greatest impact with all your teachers.</p> <p>OUTCOMES SLT confidence Clear plan agreed</p>	<p>STEP 2 Train</p> <p>Our face-to-face induction training and cutting-edge online training for your subject lead and teachers gets everyone engaged and immediately builds teacher confidence.</p> <p>OUTCOMES Teacher confidence</p>	<p>STEP 3 Teach</p> <p>Our curriculum-integrated, subject-specific CPD, planning and teaching resources, assessments and precise diagnostic data repurpose teacher time into higher value activities. The best-practice resources strengthen the quality of teaching and provide consistency across your school.</p> <p>OUTCOMES Consistency Repurposed time Ambitious curriculum</p>
<p>STEP 4 Embed</p> <p>Once the foundations are set, we work with you to attain excellence in subject teaching. We provide in-school leadership and teacher coaching and offer support through school visits, joint learning walks and an intensive programme leadership course. Teachers access a programme of subject pedagogy and on-demand videos. This approach ensures outstanding subject teaching in your school.</p> <p>OUTCOMES Pupil progress Pedagogical expertise</p>	<p>STEP 5 Sustain</p> <p>Longer term, we collaborate to build sustained impact. Induction and CPD support new staff. Regular teaching resources and CPD updates keep your offerings current and informed. Benchmarked assessments provide ongoing confidence. You’ll remain part of a network of similar schools, staying up-to-date on new research. Together, we’ll annually evaluate programme success, maintaining maximum impact for your pupils.</p> <p>OUTCOMES Consistency Pedagogical expertise Pupil progress</p>	

** Access the 2021 EEF School Planning Guide: <https://educationendowmentfoundation.org.uk/news/introducing-eef-school-planning-guide-2020-21>

A fully integrated programme

All the components of Mathematics Mastery Primary work together to ensure your school, staff and pupils get real impact from the evidence-led subject excellence programme.

	<p>SCHOOL SUPPORT</p> <p>From day one, your dedicated subject expert collaborates with teachers to create a tailored improvement plan for your school. They’ll then support you to success through the five steps over multiple years.</p>
	<p>CONTINUING PROFESSIONAL DEVELOPMENT</p> <p>Teachers and leaders get immediately actionable CPD at point of need. It supports subject knowledge, pedagogic delivery, curriculum design and more. Flexibility is key, with online or in-person sessions.</p>
	<p>ASSESSMENTS AND DATA INSIGHT</p> <p>Formative assessments for data-led instruction are available in each lesson, unit, term and year. Standardised assessments, directly linked to the curriculum, identify pupil learning gaps for targeted intervention.</p>
	<p>TEACHING AND LEARNING RESOURCES</p> <p>Curriculum-integrated planning tools and resources ensure successful programme delivery. From day one, you access carefully sequenced support for consistent, impactful, engaging lessons, built on best-practice pedagogies.</p>
	<p>OPPORTUNITIES FOR COLLABORATION</p> <p>You join a subject teaching network, fostering the exchange of best practices. Teachers and leaders connect at in-person CPD events, including induction and an annual conference, creating a community of practice.</p>

Dedicated school support

From day one, you'll have a dedicated Mathematics Mastery Primary subject expert from our team of educators. They each have a background in or currently teach primary maths. They'll collaborate with your leaders and teachers to create a tailored improvement plan for your school. Then they'll help **introduce**, **embed** and **sustain** the programme over multiple years, ensuring a lasting positive impact on your students.

M360 diagnostic call

After a thorough review, a diagnostic call with your subject expert helps identify key focus areas for maximum impact to build an improvement plan to achieve these goals consistently with all teachers.

School visits

Your subject expert will regularly visit your school for joint learning walks with the Mastery Lead, to observe programme delivery. You can also involve them in co-planning or they can run customised CPD workshops.

Online development sessions

Our regular one-to-one sessions offer coaching and mentoring for your Mastery Lead. These are carefully designed to work for each stage of your implementation journey.

Support for you

Get in touch with your subject expert by phone or email, whenever you need advice or have questions. No query is too small and no problem too big. We are here to help!

888 Meet some of our team on page 22

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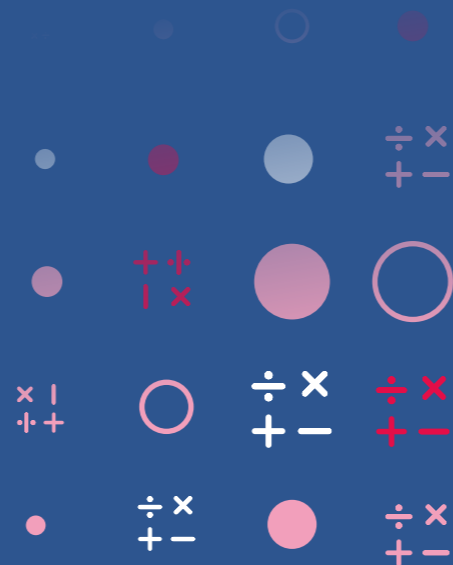
Raaj (my AC+ link) is being so incredibly helpful at settling me into the role and empowering me to then empower teachers.”

ABBIE PEARCE-DYKE
MASTERY LEAD

HATFIELD ACADEMY

100%

of Mastery Leads in our partner schools say that their AC+ subject expert **made implementation easier.**



Actionable CPD at point of need

CPD that is relevant and immediately actionable

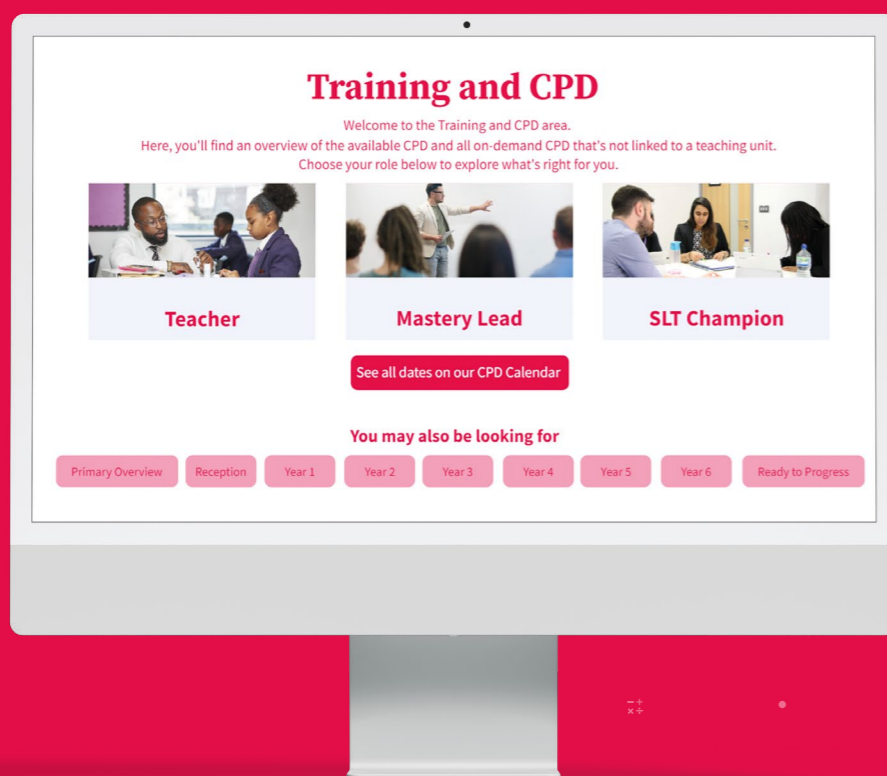
Mathematics Mastery Primary provides targeted continuing professional development that's **immediately actionable**, covering subject knowledge, pedagogy, curriculum design, assessment and more. It's **flexible** – accessible online just when you need it or through inspiring and practical in-person sessions that foster a **community of practice**.

“

I have really valued these sessions, as a leader I found them challenging in a good way, as you ask thought-provoking questions that challenge my thinking and allow me to consider other views. If I can talk about it during these sessions, I've got the confidence to talk it through with staff.”

SAM SLYDEL
MATHS LEAD

THE MILL PRIMARY ACADEMY



Induction training

All teachers, your Mastery Lead and SLT Champion attend **in-person induction training**. It's a wonderful way to get your team excited and prepared for their journey on the programme and to set them up for success. All modules are also available online and on-demand (in our bespoke MyMastery platform) to revisit when required.

‘Teaching Mastery’ certification

Teachers enjoy online, termly **CPD that builds subject and pedagogical expertise**. For each completed module they gain a badge – a great way to evidence their professional development as steps towards further qualifications like NPQs.



“

The professional development we've received has been the key to why it has been so successful so quickly in our school.”

LAUREN HARRISON
TEACHER AND MATHS
CHAMPION

ALDERMOOR FARM
PRIMARY SCHOOL

Termly ‘Preparing to Teach’ webinars

Strengthening teachers' **topic-specific subject knowledge** for the upcoming term, our webinars support teachers in effective programme delivery. Breakouts focus on common challenges within similar year groups. It's a chance to share good practice and collaborate with other partner schools.

Leadership certification

Your Mastery Lead receives termly online CPD and ongoing mentoring from their subject expert. They will earn the **Ark Curriculum Plus Certificate in Programme Leadership**, providing recognition for both them and your school.



In-school visits

Your subject expert can deliver some of the above CPD sessions during one of their visits, providing more **bespoke training** to meet your school needs.

On-demand video training

Short videos in each unit offer **content tutorials, knowledge recaps** to refresh subject knowledge and **task modelling**. This bite-size CPD is easily accessed for immediate implementation by your teachers.

Assessment to inform teaching

Mathematics Mastery Primary includes formative assessments within lessons, units, at the end of term and at the end of year, along with curriculum-linked standardised assessments. They help pinpoint pupil learning gaps and guide effective interventions.

Formative assessments

Our unique curriculum-integrated formative assessments focus on one concept per question, helping teachers understand areas needing support. They **test what students have learned, reveal knowledge gaps**, and **uncover misconceptions**, helping teachers identify learning barriers.

“*Pre-unit assessments allow our teachers to understand the pre-requisite knowledge that pupils need before going onto new content and how to address those gaps before starting.*”

HANNAH PARSONS
VICE PRINCIPAL
ARK GLOBE ACADEMY

Pre-unit quizzes gauge student readiness for the upcoming unit, so you can tailor your teaching to address learning gaps effectively.

Misconceptions and Response Signposts identify possible and specific misconceptions and highlight targeted booster activities to address these.

Post-unit quizzes help evaluate pupil understanding to support you in tracking progress.

Answer	Misconception	Response Signpost
A. 13	Incorrect! The pupil may not understand that they're looking for a missing part and have added 3 to 10 as a result.	Provide pupils with the opportunity to develop a conceptual understanding of number facts within 10 through the use of concrete or pictorial representations on a part-whole model or on a number line/bead string.
B. 7	Correct! The pupil has recalled the correct number fact to 10.	
C. 6	Incorrect! The pupil may not know their number facts to 10 and have made a mistake counting up in ones.	Incorporate practice regularly into Maths Meetings, transitions or targeted interventions.
D. 8	Incorrect! The pupil may not know their number facts to 10 and have made a mistake counting up in ones.	Booster: Y1 U1 Lesson 3: Recognise number bonds to nine and ten

Termly standardised assessments



Mathematics Mastery Primary presents a picture of your school's progress compared to **national data samples**, providing reassurance and a clear view on how and what to improve.

Summative assessments on Smartgrade (our partner platform, included when you join) are **standardised yearly** and provide a large, nationally representative data sample.

UNIQUELY, THE PROGRAMME PROVIDES:

- Comparison to current attainment data rather than historic – crucial for identifying pandemic-related gaps.
- School benchmarking to identify areas of strength and development.
- A large, nationally representative data sample from all our partner schools.
- Targeted reteach planning and support to guide improvement.

Year 3 Summer Assessment Paper 1 - Arithmetic

Year 3 Summer Assessment Paper 2 - Reasoning

Best-practice teaching and learning resources

We provide all the resources so you can focus on your pupils!

The best-practice planning tools and comprehensive lesson resources provide everything your school needs to deliver the programme successfully. From day one, your staff will have access and support to deliver consistent, impactful, engaging and pedagogically strong maths lessons, sequenced to support pupils' development of fluency, mathematical talk, reasoning and problem-solving.

THE TEACHING AND LEARNING RESOURCES:

- Build on solid, evidence-led pedagogical principles – the Dimensions of Depth (see p19) – which give you confidence that they will have the greatest positive impact on your pupils.
- Promote oracy in a flexible and fun way that works for your pupils, making mathematical success accessible to everyone.
- Provide structure and support so that you own the curriculum, with quick videos and at-a-glance planning guides.
- Are created with early career teachers (ECTs), non-specialists and specialists in mind, giving the relevant level of guidance for each.
- Include adaptation examples and guidance to suit your pupils' and school's needs.

WHAT'S INCLUDED?

Planning

- Curriculum maps
- Programme of study
- Planning guides
- Unit narratives

Teaching

- Lesson slides
- Task sheets
- Key representations
- Maths Meetings
- Interventions

Click here to access a free **Programme Preview** and see examples of these resources.



Unit narrative

The unique unit narratives are loved by all our partner schools. They give an at-a-glance overview of the key content and learning covered in a unit, providing teachers with full ownership and understanding of their curriculum and its intent. Each one gives teachers guidance on the **sequence of lessons**, **possible adaptations and signposts to relevant CPD** videos and research articles.

“

The additional planning resources and thoroughness of the plans have definitely given teachers confidence in delivering well planned maths lessons.”

MICHAEL WARNES
MASTERY LEAD

BURE VALLEY SCHOOL

A clear, zoomed out **big picture understanding** of how the learning progresses to illustrate what came before and what to prepare for next.

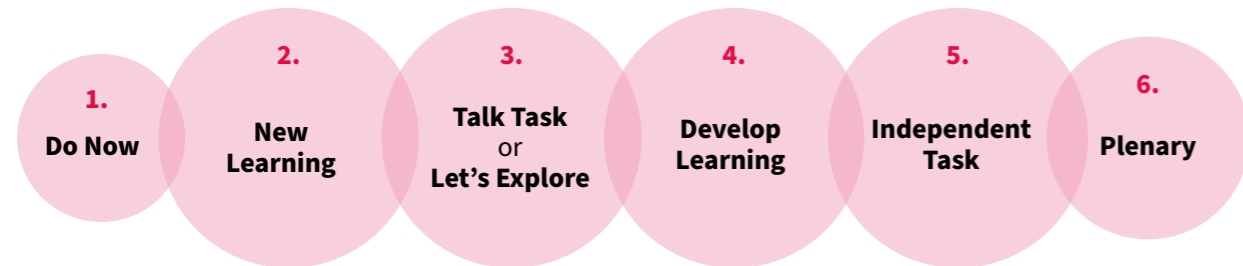
Easy to access links to **supporting topic-related CPD videos** for teachers who need extra support, exactly when they need it.

Clear signposting of likely **misconceptions, key models and images**, allowing teachers to focus on what will matter most in the upcoming unit.

Everything on one page in an **easily digestible format** – brilliant for busy ECTs and expert teachers alike.

Lesson resources

The Mathematics Mastery six-part lesson structure is unique and allows teachers to take control of the learning, based on what is happening in the classroom that day. Assessment for learning opportunities are threaded throughout, constantly building upon what pupils are learning at every stage in the lesson.



Fully editable slide decks are provided for each lesson, including notes and guidance to support teaching and ownership. The Dimensions of the Depth (see p19) pedagogical principles are embedded in each lesson, building accessible best practice. **Oracy is elevated** by combining the use of sentence stems, Star Words and Talk Tasks – making mathematical success a reality for all pupils.



“We have had a number of ECTs this year. All have commented how the resources provided have supported their workload and have been useful for resourcing lessons.”

LAUREN SMALLMAN
MASTERY LEAD
RIVERSIDE PRIMARY SCHOOL

“More time is spent on thinking about the quality of explicit instruction and modelling now that teachers are not creating all lesson resources.”

KANWALJIT SACHDEVA
ASSISTANT HEADTEACHER
BEDFONT PRIMARY SCHOOL

★ In every lesson pupils are given **Star Words** and have the opportunity to use those words and given sentences in **Talk Tasks**.

Key Learning: To use the 'Make ten' strategy to add ones

Star Words: 'Make ten', number bonds, partition, ones, number line

To 'Make ten' or not 'Make ten'

I choose $9 + 5$. You can use 'Make ten' because $9 + 1$ is equal to ten, and five is greater than one. So the sum of $9 + 5$ must be greater than ten.

I start with nine beads. I need to add five more. I know $9 + 1 = 10$. I partition five into one and four. $10 + 4 = 14$.

Key Learning: To use the 'Make ten' strategy to add ones

Solve the equations.

Record your mental calculations on the number lines.

Demonstrate the 'Make ten' strategy on a bead string.

💡 You are supported to select the **appropriate representations** for each lesson, including concrete, pictorial and abstract so that pupils make connections and build deep conceptual understanding.

📄 An **Independent Task** is provided in every lesson, with opportunities to deepen understanding for all pupils.

Maths Meetings

Maths Meetings are a vital part of the programme, building pupil **fluency and oracy**. They take place daily for 10 minutes outside of the maths lesson and provide **flexible, fun retrieval opportunities** fitted to your individual pupils' needs. They allow pupils to develop fluency, consolidate and embed prior learning, and build their mathematical language with a real sense of joy. This daily activity generates **energy and enthusiasm** for maths in every classroom.

TO SUPPORT DELIVERY WE PROVIDE:

- Comprehensive guidance on what to include by year and by term.
- Video examples.

“

Maths Meetings are crucial in keeping learning consolidated and content regularly reviewed. This enables pupils to remember more and has had a huge impact on improving end of KS1 SATs results (90% expected, 32% greater depth)."

ELLIE WARNER
MATHS LEAD

SMARDEN PRIMARY SCHOOL



Ready to Progress interventions

Our interventions enable teaching assistants and other non-teaching staff, regardless of their experience, to deliver **high-quality intervention sessions** in one-to-one and small group settings, with minimal preparation time.

THE PROGRAMME CONTAINS:

- **Diagnostic placement quizzes** to pitch the support and challenge perfectly for each child.
- Over 140 **pupil-facing videos** so that you can share modelled examples from maths specialists.
- **Structured activities** for every intervention focus so that pupils have opportunity for purposeful practice, application and reasoning.
- **Comprehensive support** for the adult leading the intervention that builds their subject and pedagogical knowledge.

The interventions were designed in line with Education Endowment Foundation best practice: *"TAs work in structured settings, with high quality support and extensive training from experienced trainers and/or teachers."* Plus, they're aligned with the DfE Ready to Progress criteria, so you can trust they work to **achieve pupil success**.

“

The interventions have helped students apply different skills and methods in their maths lessons and their tests."

FAIZA SHAZ
TEACHER

BECKFOOT ALLERTON
PRIMARY SCHOOL AND
NURSERY



Be inspired by like-minded schools

Building a community of practice

Partner schools join a **subject teaching network**, sharing best practices and learning from each other. Attend in-person CPD events, including induction training and our annual conference, to collaborate with and be inspired by your peers. Your subject expert may connect you with local or similar context schools, helping you gain insights on delivery or simply see Mathematics Mastery Primary in action in other settings.

Annual conference

We host an exclusive annual conference to facilitate sharing and learning between our partner schools and offer access to new research and thinking.

With exciting keynote speakers and practical workshops, you leave feeling **reinvigorated, reenergised and ready to continue making a real difference** to your pupils' achievement and progress.



“

I feel so inspired by today's sessions. Really enjoyed myself and picked up lots of ideas.”

JOANN STIRRUP
CONFERENCE
ATTENDEE 2023

**ST AUGUSTINE'S
CATHOLIC ACADEMY**

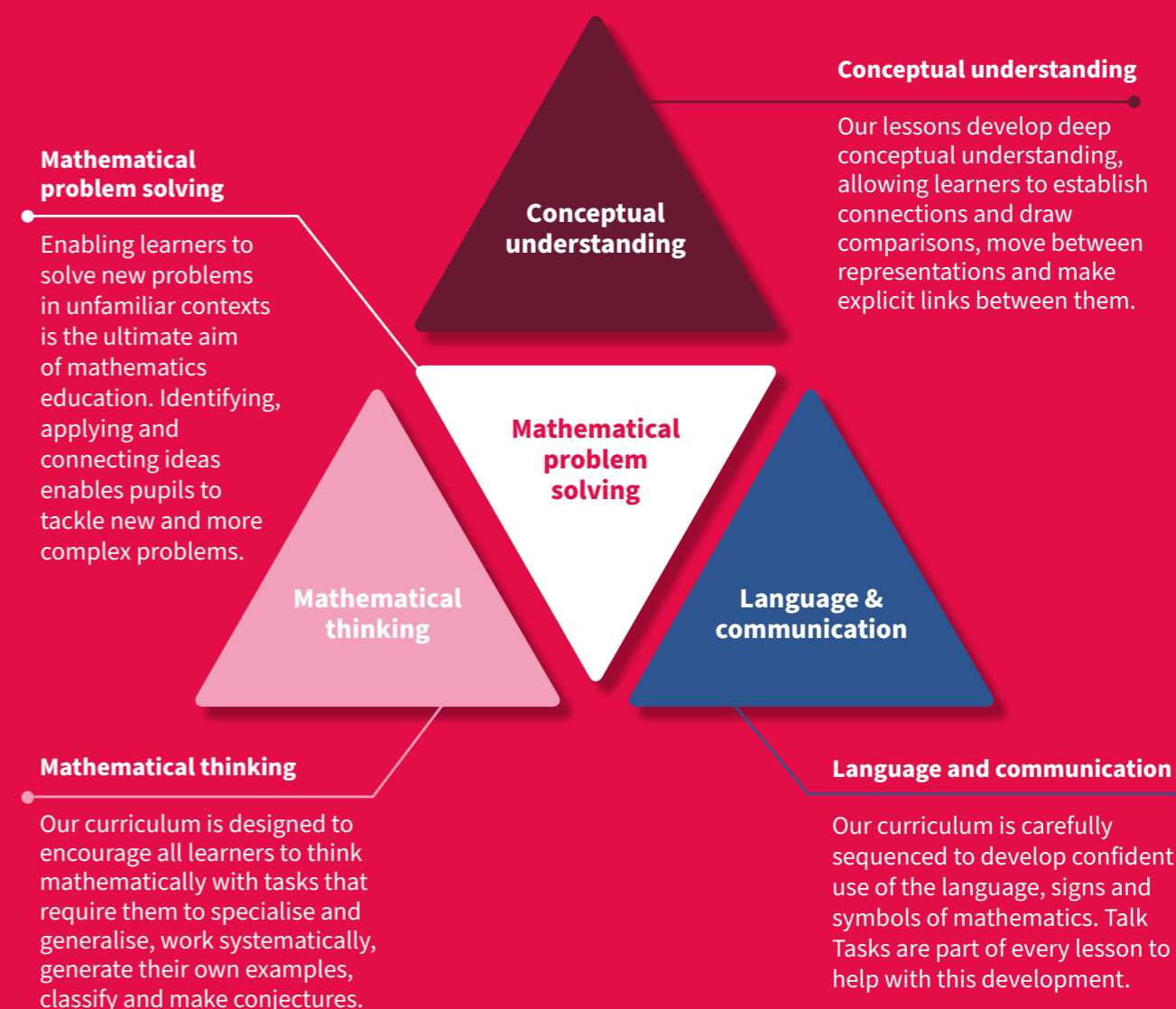
94%

of those who completed our conference survey rated the opportunities to network with other schools as **Good or Excellent**.

Unique pedagogy

The Dimensions of Depth are our pedagogical principles, derived from research and practice.

Together they enable **all pupils** to build a deep understanding of maths. That's why they are embedded throughout our subject excellence programme, in our school support, CPD, assessment, and planning and teaching resources.



Standing out from the crowd

The impact of our programmes is clear, but in case you need even more reasons to choose AC+...



Collaboratively designed and refined in classrooms

Grown in collaboration with Ark Schools, one of the highest achieving MATs in the UK, we continually learn and co-create together, constantly testing what really works live in the classroom, to make improvements that will have the biggest positive impact.

Our programmes support disadvantaged pupils – Ark Schools pupils make nearly half a grade more progress than their peers nationally. We're here to help give all pupils the opportunities that an excellent education provides.

Recognised as an educational leader

We're proud to be recognised as a leader in subject improvement. We work with the Education Endowment Foundation, The Brilliant Club and the Fischer Family Foundation, whose research provides robust evidence of our impact. We collaborate with the subject associations, along with universities including Cambridge and UCL.

Accountable to you and your pupils

We are a non-profit organisation. Our full attention is on supporting our partner schools and making our already impressive programmes the best they can be. We're particularly passionate about helping disadvantaged children and we aim to level the playing field, so that every young person can succeed.

The schools that we work with are charged a financial contribution which goes right back into delivering and developing the programmes. We're not accountable to shareholders, we're accountable to you!

Aligned to Ofsted to support your quality of education

The Education Inspection Framework looks for consistency between the intent of schools' curricula, and the ways schools empower their team to realise these plans. We have supported many schools to be expertly prepared for an Ofsted visit by:

- Providing a powerfully sequenced, academically ambitious curriculum for all.
- Equipping maths leads with the confidence to articulate their curriculum intent, implementation and impact.
- Delivering immediately actionable teacher CPD at point of need, supporting subject knowledge, pedagogic delivery, curriculum design and more.

Our expert team

Our team have all been teachers or in school leadership roles. They all love working with Mathematics Mastery Primary schools because they truly believe in the power of research to inform practice and to narrow the attainment gap. Everyone is a member of the Chartered College for Teaching and the Association of Teachers of Mathematics – meaning we engage with the latest research and the subject community directly.



Claire Crosbie



Laura Tyler



Anthony Latham



James Protheroe



Kate Jones



Sara Castledine



Verna-Jean Gervais



Raajini Shepherd



Sophie Davis

“

The change in results has been amazing but it's the children's confidence that really shines through.”

LYNSEY GALE
SENIOR LEADER

THOMAS'S ACADEMY

It's easy to join us



Let us know you're interested by [email](#), phone or by [booking a meeting](#).



We'll have a **virtual meeting or a call** with you to learn more about your school and we will confirm if you're eligible for one of the 100 [subsidised places](#) available on the programme.



Agree you're joining the **Mathematics Mastery programme** with your senior leadership and sign a contract.



Get set up with Smartgrade and have a **diagnostic call** to agree the plan for your school's implementation.



Attend **induction training** and receive full support to introduce the programme in your school.

GET IN TOUCH

Speak to a member of our team about **partnering with AC+** today.

✉ partnerships@arkcurriculumplus.org.uk

☎ 020 3116 6363

📅 Or book a call online at a time that suits you: calendly.com/ark-curriculum-plus

OUR OTHER SUBJECT EXCELLENCE PROGRAMMES

PRIMARY



SECONDARY



We look forward to partnering with you!

We work with schools like yours nationwide to deliver immediate impact and sustained subject excellence.

So if you're looking for stronger pupil outcomes, more confident teachers and consistently high-quality teaching and learning across your school... Relax. With Ark Curriculum Plus, you're in safe hands.

Start your journey to subject excellence today!



Click here to request access to our **Programme Preview** and see more detail of what you get on the programme.



Click here to find out more about the **100 subsidised places** available to join the programme.

Ark Curriculum Plus

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