

Maths Hubs Professional and School Development Opportunities

2022/23

Discover fully funded subject-specific opportunities to support professional learning for teachers and development for departments and schools.



NCETM
NATIONAL CENTRE FOR EXCELLENCE
IN THE TEACHING OF MATHEMATICS

What opportunities does the Maths Hubs Network offer?

Every year, the 40 Maths Hubs across England offer a wide variety of 'projects' to teachers and schools, covering maths teaching from Early Years to post-16.



All of the projects involve teachers developing their knowledge and pedagogy for maths teaching, whilst collaborating with their peers and putting their new knowledge to work in their classrooms. Most also aim to influence classroom and collaborative practice that benefits maths teaching and learning across a department or school.

These professional development opportunities are coordinated by the NCETM (National Centre for Excellence in the Teaching of Mathematics) and the Maths Hubs Network, which consists of 40 hubs that cover the whole of England and serve all state-funded schools.

For 2022/23, there are over 30 different projects available. Generally, teachers will work alongside colleagues from other schools, in a small group led by a local experienced teacher with expertise in professional development and the school phase in question. A small number of projects involve larger groups coordinated and led regionally or nationally. Meetings are a mix of online and face-to-face. The work takes place over an extended period, across two or three school terms, which allows for experimentation and experience-sharing within the group. Many projects include a parallel objective of embedding improved practice, leading to more secure learning across a department or school.

Participants will be involved in either **Work Groups, programmes** or **communities** according to the experience offered to participant teachers (see page 3). However, all offer fully-funded, high-quality professional development, and the chance for participants to become more effective teachers of maths.



Types of activity

Work Group	With the primary aim of supporting school – or department-wide development in their own setting, participant teachers will develop their own expertise as classroom practitioners. Both objectives – personal learning and school or department development – are supported by the collaboration among other members of the Work Group, guided by the Work Group Lead.
Programme	Teachers participating in a programme join a cohort of colleagues from other schools on a series of sessions – more akin to a training course – where the central objectives are individual professional learning and practice development. Sessions are led by a local Cohort Lead, who concentrates on progress being made by individuals as well as facilitating experience-sharing and discussion amongst participants. The materials used on the programmes are developed centrally by the NCETM.
Community	Professional learning communities are looser in structure, with fewer fixed meeting times but more frequent, informal communications among members in their own time. There's also an expectation that participants will continue to work and learn together beyond one academic year. All communities have a Community Lead who steers discussions and conversations, offering expert input and individual support where appropriate.



How can you get involved?

Discover the projects your local Maths Hub is offering – details of all the projects are in this catalogue. Then get in touch with your hub to book your place. Contact details for your hub are on the next page.

The Maths Hubs projects provide something for everyone and every school. Don't miss out!





Welcome

Your local Maths Hub is:

Venn Essex Maths Hub

We serve all state-funded schools in the areas of:

Essex (except Harlow)
Southend and Thurrock.

The professional development we provide is fully funded, meaning it is **free** for the participant or the participant's school/college.

The Lead School for the hub is:

St Thomas More's Catholic Primary School

Some of the professional and school development activities in this catalogue take place in face-to-face meetings. Others happen online. In most cases you will be working together with colleagues from schools in your area .

To find out more about the Work Groups, programmes and communities on offer with your hub, check the details in the box on the bottom left corner of each page.

You can also contact us directly at the Maths Hub, or visit our website.

We look forward to hearing from you.

Contact

Please send an email to Kelly via:

info@vennessexmathshub.co.uk

Or call us on 01206 48 99 33

www.vennessexmathshub.co.uk



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Fully funded

Mastering Number

Supporting pupils in Reception, Year 1 and Year 2 to develop good number sense

A national programme to secure firm foundations in the development of good number sense

What is involved?

This programme focuses on the key knowledge and understanding needed in Reception classes, and progression through KS1. Participating schools will receive central training (online and face-to-face) and a wealth of pupil-facing resources.

There is an expectation that schools will provide a daily teaching session for all children of 10 to 15 minutes, in addition to their normal maths lesson. Lead Teachers in schools will also contribute to an online community to share practice and engage in critical reflection.

Who can take part?

Lead participants from Work Group schools will be three teachers – one each from Reception, Year 1 and Year 2 – known as Lead Teachers. Some support will also be given to subject leaders and headteachers. Where appropriate, Lead Teachers are expected to support the other teachers in their year group.

This programme and its Work Groups are open to all schools that have not yet engaged with the Mastering Number Programme.

Find out more

Search **mastering number** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- Your pupils will be able to clearly communicate their mathematical ideas
- You will develop a secure understanding of how to build firm mathematical foundations
- You will work to develop teaching strategies focused on developing fluency in calculation and number sense for **all** children
- You will develop understanding and use of appropriate manipulatives to support your teaching of mathematical structures

The **programme** is fully funded by the Maths Hubs Programme, so is **free** to participating schools.



ncetm.org.uk | @NCETM



Coordinators of the Maths Hubs Programme

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Mastery Readiness

A programme for primary schools that want to adopt teaching for mastery in maths, but would benefit from a staged approach

What is involved?

Schools with additional challenges need bespoke support to ensure their systems and cultures are conducive to a teaching for mastery approach. Those who are not yet ready to join a Teaching for Mastery Development Work Group will prepare for implementing a teaching for mastery approach which is embedded and sustained across the whole school. This will involve receiving support from Mastery Readiness Leads, and developing classroom culture and attitudes to maths that will support a teaching for mastery approach, both on the part of teachers and their pupils.

After the year-long programme, Mastery Readiness schools will be ready to progress into Development Work Groups and beyond.

Who can take part?

Schools will have an identifiable barrier to being able to successfully implement teaching for mastery at present. Barriers may include an Ofsted grading of RI or Inadequate, poor pupil progress in maths, serving an area of low social mobility, or issues in the school that have meant the implementation of sustained change has been difficult.

Find out more

Search **mastery readiness** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you. b

Benefits

- Your pupils will demonstrate an improved mathematical mindset and potential to progress in the subject
- Your school leaders will promote a collaborative learning culture amongst staff in order to make improvements to the teaching and learning of maths
- You will put into practice the school's shared vision for what maths will look like in your school
- You will try new approaches to teaching maths and reflect on the impact of your changes regularly, so that you can share good practice beyond your own classroom

The **programme** is fully funded by the Maths Hubs Programme, so is **free** to participating schools.



Fully funded

Primary Teaching for Mastery

Development Work Groups

Be part of the continuing programme to develop teaching for mastery in maths in primary schools

What is involved?

Two teachers from each participating school join a Work Group, consisting of six or seven local primary schools. Each Work Group is led by a trained Primary Mastery Specialist. Work Groups meet regularly to plan, observe and discuss teaching for mastery. In between meetings, teachers explore mastery approaches in their own classrooms and across their school.

Support is provided from a local classroom-based Mastery Specialist who leads the group. This model of professional development involves hands-on learning and peer-to-peer support. It is evidence-based and designed to support substantial long-term change.

Who can take part?

This programme is for state-funded primary schools in England. Two teachers from each participant school will attend six half-day meetings during the school year, and lead teaching for mastery development in their own school.

Find out more

Search **primary teaching for mastery** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- Pupils will show a positive attitude towards maths, enjoy learning the subject and demonstrate a growth mindset
- Leaders will develop a common vision, culture and set of principles which support teaching for mastery
- Teachers will enhance their maths subject knowledge with an emphasis on progression within key areas of maths
- Teachers will cultivate a deep understanding of the principles and pedagogies related to teaching for mastery

The **Work Groups** are fully funded by the Maths Hubs Programme, so are **free** to participating schools.





Fully funded

Primary Teaching for Mastery

Embedding Work Groups

Collaborative professional development to support schools in their second year of teaching for mastery

What is involved?

Work Groups in this project will support schools to scale up teaching for mastery approaches from individual teachers' classrooms, ensuring whole-school practices are consistently adopted. There are six workshops across the year, plus support from a Mastery Specialist.

Those who have been in a Development Work Group become part of this project, focusing on systems and culture to support teaching for mastery, as well as support for school leadership and subject leadership.

Who can take part?

This is for schools who have previously participated in a Development Work Group. All must show a strong commitment for embedding teaching for mastery approaches, and at least the lead teacher from the Development Work Group must have already started using mastery approaches. The school leadership team including the headteacher must also be involved, to ensure there is a whole-school commitment.

Find out more

Search **embedding primary mastery** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- You will enhance your mathematical subject knowledge, emphasising key areas of maths
- You will plan, teach and reflect on lessons with a mastery approach
- Your school leaders will understand the school-wide structures which enable staff to develop mastery approaches
- You and your school leaders will establish a set of principles, policies, practices and systems which embody a teaching for mastery approach

The **Work Groups** are fully funded by the Maths Hubs Programme, so are **free** to participating schools.



Fully funded

Primary Teaching for Mastery

Sustaining Work Groups

Support for schools to make teaching for mastery 'business as usual'

What is involved?

This is for primary schools who have previously been involved in a Development or Embedding Work Group, or who are Mastery Specialist schools. It brings together schools working to sustain their mastery approach to maths. Workshops are hosted in different schools during the year, with the first held in a Mastery Specialist's school.

Sustaining Work Groups are a permanent form of support where schools can focus on continued improvement, consistency and refinement of teaching for mastery. Teachers, maths leads and headteachers are all involved, striving to support teachers, and looking at collaborative planning and subject knowledge development.

Who can take part?

Schools will have previously participated in a Development Work Group and might have received support for embedding mastery. Participating schools must show strong commitment from their leadership for sustaining mastery approaches, and for most teachers to have already started using these.

Each school will have a lead participant in the Work Group, normally the maths lead. At different points in the year, other teachers will also participate.

Find out more

Search **sustaining mastery work groups** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- You and your school will enhance your mathematical subject knowledge, emphasising key areas of maths
- You and your school will plan, teach and reflect on lessons with a mastery approach
- You and your school will understand the school-wide structures which enable staff to develop mastery approaches
- You and your school leaders will establish a set of principles, policies, practices and systems which embody a teaching for mastery approach

The **Work Groups** are fully funded by the Maths Hubs Programme, so are **free** to participating schools.



Fully funded

Years 5-8 Continuity

Work Groups

Strengthen the transition from primary to secondary school

What is involved?

Work Groups in this project focus on curriculum and pedagogical continuity over Years 5 to 8. Participants will explore a selection of high-quality resources: Checkpoints, Multiplicative Reasoning and Algebraic Thinking materials.

A lesson study approach is encouraged, where all participants focus on a particular aspect of the maths curriculum and work collaboratively to develop this in their schools. Cross-phase classroom observation and discussion of practice are encouraged wherever possible.

Who can take part?

This project is for both primary and secondary schools. It may be particularly suitable for linked 'families' of schools: primary, secondary, etc. A 'family' could be a secondary school and their associated (feeder) primary schools or groups of schools from within a MAT. Lead participants should be teachers of Years 5-8, ideally with some responsibility for curriculum development.

Find out more

Search [years 5-8 continuity](#) online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- Your pupils in KS2 and KS3 will demonstrate a positive attitude to maths
- You will make common use of approaches, representations and language across phases
- You will deepen your knowledge and understanding of the curriculum across KS2 and KS3 and the expectations of pupils at the end of each Key Stage
- You and your cross-phase colleagues will collaborate on issues of curriculum and pedagogy as a normal part of your schools' transition practice

The **Work Groups** are fully funded by the Maths Hubs Programme, so are **free** to participating schools.





Fully funded

Primary Mastery Specialist Programme

Mastery Specialists are classroom-based practitioners who develop expertise in mastery and in leading maths-specific professional development

What is involved?

The Mastery Specialist Programme is for primary teachers with a passion for maths. Each year over 100 primary teachers – three or four from each Maths Hub – complete a programme of professional development to become Mastery Specialists. In every subsequent year, each of these teachers leads a Teaching for Mastery Work Group.

Focus throughout the training is on both maths knowledge and practice. Participants will work on developing a deeper understanding of teaching for mastery and reflect on how to support others effectively.

Who can take part?

This programme is for experienced primary teachers. Participants must be regularly teaching maths to a primary class, and have a passion for teaching for mastery. Excellent communication and a desire to develop skills both in the classroom and in working with others are essential.

Find out more

Search **ncetm professional development lead programme** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- Your pupils will develop a deep understanding of, and confident attitude towards, maths
- You will demonstrate deeper subject knowledge and greater understanding of the principles behind teaching for mastery
- Your colleagues will begin to develop teaching for mastery approaches
- Your school will develop a positive maths professional development culture

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Fully funded

Specialist Knowledge for Teaching Mathematics (SKTM)

Early Years Teachers

Develop mathematical subject knowledge and pedagogy

What is involved?

This programme is designed to improve the subject knowledge and pedagogical knowledge for all practitioners teaching and supporting the learning of early maths.

There are two types of SKTM Early Years pathways: Pathway One: Number Patterns and Structures, and Pathway Two: Pattern, Shape, Space and Measures. Each pathway is the equivalent of a four-day programme and has three core elements, three associated pedagogy sessions, and a task to support the transition from theory to practice. There is also a final core unit that aims to review quality provision.

Who can take part?

These programmes are designed for individuals who would like to develop their specialist knowledge for teaching maths to three- to five-year-olds. This may be particularly relevant for teachers who have moved phases or have not received maths-specific training.

Find out more

Search **early years SKTM** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- Your pupils will demonstrate a positive attitude towards maths, being willing to have a go, persevere, and share their mathematical ideas
- You will review the mathematical learning opportunities and pedagogical approaches across your wider provision
- You will evaluate and enhance the opportunities to promote mathematical learning in all areas of provision

The **programme** is fully funded by the Maths Hubs Programme, so is **free** to participating schools.



Fully funded

Specialist Knowledge for Teaching Mathematics (SKTM)

Primary Teachers

Develop mathematical subject knowledge and pedagogy

What is involved?

This project is designed to improve the subject knowledge and pedagogical knowledge for all practitioners teaching and supporting the learning of primary maths.

There are two pathways: Number, and Spatial Reasoning. Each pathway consists of several core units and looks at specific topics as well as policy and practice. Exploration of modules in these pathways will take place during the the academic year, over the equivalent of four days. Participants in the programme may wish to follow one pathway this year, and the other pathway next year.

Who can take part?

These programmes are designed for primary teachers who would like to develop their specialist knowledge for teaching maths. This may be particularly relevant for teachers who have moved phases or have not received maths-specific training.

Find out more

Search **primary teachers SKTM** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

- Your pupils will demonstrate a positive attitude towards maths, being willing to have a go, persevere, and share their mathematical ideas
- Your pupils will be able to explain their maths and their mathematical thinking using appropriate language
- You will review your practice as a result of the sessions and make practice-specific adaptations to impact on pupil outcomes
- You will enhance your maths subject knowledge with an emphasis on the key structures in each mathematical area covered

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Fully funded

Specialist Knowledge for Teaching Mathematics (SKTM)

Primary Teaching Assistants

Develop mathematical subject knowledge and pedagogy

What is involved?

This project is designed to improve the subject knowledge and pedagogical knowledge for all practitioners teaching and supporting the learning of primary maths.

It utilises primary teaching assistant-specific materials and focuses on the following mathematical areas: What is effective in the learning and teaching of mathematics?; Number sense (part 1); Number sense (part 2); Additive reasoning; Multiplicative reasoning; Fractions. The modules are each designed to last three to four hours, but may last longer if delivered online. This programme will take place across the equivalent of four days.

Who can take part?

These programmes are designed for primary teaching assistants who would like to develop their specialist knowledge for teaching maths. This may be particularly relevant for new TAs or TAs that have not received maths-specific training.

Find out more

Search **SKTM primary teaching assistants** online or contact your local Maths Hub:

Please use this [LINK](#) to express interest and we will contact you.

Benefits

Your pupils will demonstrate a positive attitude towards maths, being willing to have a go, persevere, and share their mathematical ideas

You will review your practice as a result of the sessions and make specific adaptations to support the pupils you are working with

You will understand the key elements that form number sense, forms of addition and subtraction, forms of multiplication and division, and forms of fractions, including precise language, structures and representations

The programme is fully funded by the Maths Hubs Programme, so is free to participating schools.





Fully funded

Specialist Knowledge for Teaching Mathematics (SKTM)

Primary Early Career Teachers

Develop mathematical subject knowledge and pedagogy

What is involved?

Two maths-specific subject knowledge projects are available to support primary Early Career Teachers (ECTs) – one is for ECTs who have not yet participated in this project and one is for those who participated in 2021/22. Both projects offer high-quality subject knowledge and pedagogy maths support for ECTs, recognising the requirements of the ECF.

Communities of ECTs will be formed in these projects, allowing for collaboration and practice-sharing. In both projects, teachers will design effective learning and teaching in maths, and review and analyse their practice.

Who can take part?

Phase 1 Communities are for those identified as Early Career Teachers – teachers in their first or second year of teaching. Phase 2 Communities are for those in the early part of their careers. They will have engaged with Phase 1 before engaging with this phase.

Find out more

Search **SKTM primary early career teachers** online or contact your local Maths Hub:

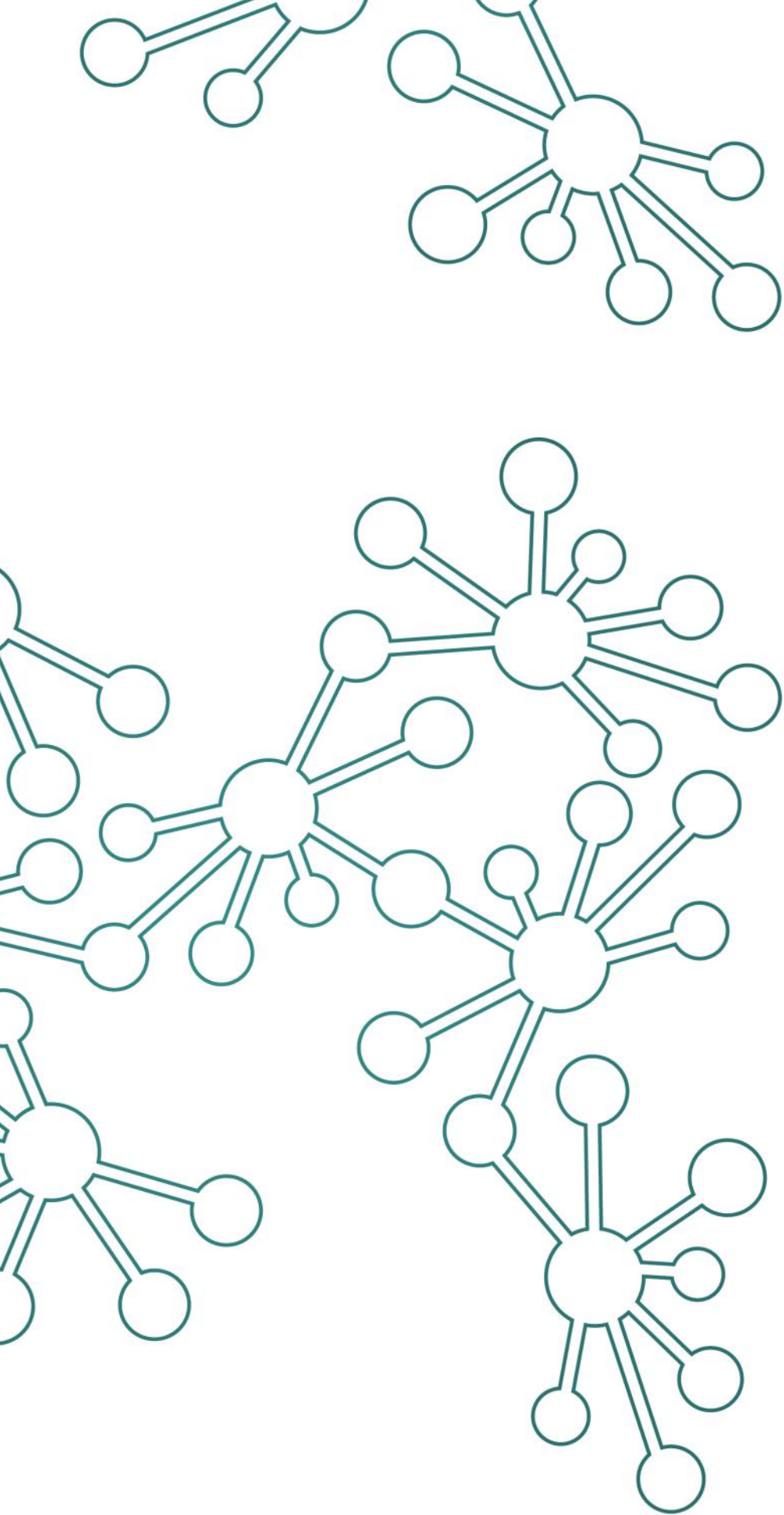
Please use this [LINK](#) to express interest and we will contact you.

Benefits

- Your pupils will be seen to elaborate when responding to questions, showing that their answer stems from a secure understanding
- You will identify essential concepts, knowledge and skills within the topic area and provide opportunity for all pupils to learn and master these critical components
- You will develop an understanding of approaches to assess pupils' prior learning, so that learning sequences are planned to take this into account

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