

2023/24

Maths Hubs Professional and School Development Opportunities

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?



Again this academic year, the 40 Maths Hubs across England are offering a wide variety of professional development opportunities to individuals, departments and schools.

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 and colleges.

For 2023/24, 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	<p>Work Groups support schools to bring about school- or departmental-wide development in maths. Lead participant teachers from the schools collaborate locally with their peers to focus on this school-wide change, along with the associated practice development and professional learning. Work Groups are led by a teacher (or former teacher) expert, who is experienced in both maths education and in leading teacher professional development.</p>
Programme	<p>Programmes support individual teachers or leaders of maths in their professional development. There are two types: Specialist Knowledge for Teaching Mathematics (SKTM) programmes, where individuals develop specialist knowledge to improve their practice; and Local Leaders of Mathematics Education (LLME) development programmes, to equip practitioners to lead work with teachers and schools. Both involve participants joining a cohort of colleagues from other schools or colleges, and exploring centrally produced NCETM materials.</p>
Community	<p>Professional learning communities also emphasise supporting individual teachers or leaders of maths in their professional development. Participants collaborate formally and informally, over a sustained period of more than a year, to deepen their understanding of maths culture, curriculum, pedagogy, and professional development. Community Leads establish a professional learning culture that supports professional dialogue and mutual support, offering their own expert input where appropriate.</p>



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:

East Midlands East Maths Hub

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:

The Minster School, Southwell, NG25 0LG

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

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Fully funded

Mastering Number at Reception and KS1

Supporting pupils to develop good number sense

A national programme now in its third year

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.

These resources will provide teaching materials for four short sessions each week, aimed at developing children's fluency and flexibility with number. 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 at reception and KS1** online or contact your local Maths Hub:

enquiries@ememathshub.org

Benefits

- Your pupils will develop and demonstrate good number sense
- 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 **Work Groups** are fully funded by the Maths Hubs Programme, so are **free** to participating schools.



Fully funded

Mastering Number at KS2

Work Groups

Secure firm foundations in multiplicative relationships

What is involved?

Knowledge of multiplication and division and its applications forms the single most important aspect of the KS2 curriculum, and is the gateway to success at secondary school. This project enables pupils in Years 4 and 5 to develop fluency in multiplication and division facts, and a confidence and flexibility with number that exemplifies good number sense.

Teaching materials will be provided to cover five short sessions a week, with participants expected to support colleagues in their year groups to use the resources with all Year 4 and 5 classes.

Who can take part?

This project is for schools that are involved in Mastering Number at Reception and KS1, and are also in a Sustaining Work Group. Lead participants from Work Group schools will be two teachers – one from each of Year 4 and Year 5. Support will also be given to maths leads and headteachers.



Find out more

Search **mastering number at KS2** online or contact your local Maths Hub:

enquiries@ememathshub.org

Benefits

- Your pupils in KS2 will develop automaticity in multiplication and division facts through regular practice
- You will develop an understanding of how pupils progress in their knowledge and understanding of multiplicative concepts
- You will work as part of a professional learning community to refine your practice
- You and your school leaders will develop Mastering Number at KS2 as part of the curriculum in Years 4 and 5

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



Fully funded

Mastery Readiness

Support 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:

enquiries@ememathshub.org

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 **Work Groups** are fully funded by the Maths Hubs Programme, so are **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 around six 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 is for state-funded primary schools in England. Each school must send two teachers to half-termly school-based teacher research groups. Each term, the Mastery Specialist will visit each of the schools.

In 2023/24, those teaching in special schools will have an enhanced offer that will enable them to network with other schools in a similar context.



Find out more

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

enquiries@ememathshub.org

Benefits

- Pupils will show a positive attitude towards maths and enjoy learning the subject
- 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 at least five 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 to 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 mastery work groups** online or contact your local Maths Hub:

enquiries@ememathshub.org

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 systems to support ongoing professional learning within school

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.

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, looking at collaborative planning and subject knowledge development. The expectation is that schools remain in a Sustaining Work Group for many years to come.

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:

enquiries@ememathshub.org

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 systems to support ongoing professional learning within school

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 collaborate with colleagues from across KS2 and KS3, working on mathematical tasks together and reflecting on the resulting activity and learning.

Sessions will take place in KS2 and KS3 settings, offering the chance to see tasks in the context of a classroom. School-based activities between meetings encourage participants to make use of the resources with their own pupils.

Who can take part?

The project is for those who teach and/or have responsibility for the curriculum in Years 5-8. Participants may be subject leaders or teachers with responsibility for transition in a school. They need to be supported to try out different tasks with their students and be released to attend three full-day workshops.



Find out more

Search **years 5-8 continuity** online or contact your local Maths Hub:

enquiries@ememathshub.org

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.





There has been a massive improvement in children being able to access the curriculum. It's helped that staff knowledge has greatly improved, and having structure has helped this to happen across the school.

Participant teacher in a Mastery Readiness school



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 consists of the equivalent of four days, spread out over a minimum of two terms. Professional learning and practice development continue throughout, with participants introducing new ideas into their daily practice.

Who can take part?

This project is for Early Years teachers who would like to develop their specialist knowledge for teaching maths to Reception pupils. It may be particularly relevant for teachers that have moved phases or have not received maths-specific training.



Find out more

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

enquiries@ememathshub.org

Benefits

- Your pupils will demonstrate a positive attitude towards maths, being willing to have a go, persevere, and share their mathematical ideas
- You will explore and increase your use of a range of pedagogic approaches that will support pupils in engaging with and developing their maths
- You will understand how maths opportunities can be developed across all areas and in everyday routines

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 the equivalent of four days, spread out over a minimum of two terms. Professional learning and practice development continue throughout, with participants introducing new ideas into their daily practice.

Who can take part?

This programme is 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 **SKTM primary teachers** online or contact your local Maths Hub:

enquiries@ememathshub.org

Benefits

- Your pupils will positively engage with maths that challenges them
- Your pupils will be able to explain their maths and their mathematical thinking using appropriate language
- You will identify pedagogical approaches that will enhance teaching and learning, and know how to plan for these
- You will enhance your maths subject knowledge with an emphasis on the key concepts in each mathematical area covered

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 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 supporting the learning of primary maths.

It supports primary teaching assistants who are supporting maths to develop specialist knowledge for teaching maths, to build on the primary maths national curriculum, and to develop distinct pedagogical decision-making which will impact on their practice when supporting maths. It takes place over the equivalent of four days.

Who can take part?

This programme is designed for primary teaching assistants who are supporting maths, and who would like to develop their specialist knowledge for teaching maths. This may be particularly relevant for new TAs or TAs who have not received maths-specific training.



Find out more

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

enquiries@ememathshub.org

Benefits

- Your pupils will positively engage with maths that challenges them
- You will identify common misconceptions and ways of addressing these to help pupils master important concepts
- You will develop an understanding of key principles and approaches associated with teaching for mastery

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 2022/23. Both projects offer high-quality subject knowledge and pedagogy maths support for ECTs, recognising the requirements of the ECF.

This programme strikes a balance between developing teachers' maths subject knowledge and pedagogical content knowledge, alongside classroom practice to support the learning of maths. Participants will attend the equivalent of up to four days of sessions, focusing between sessions on the use of tasks in the classroom.

Who can take part?

Phase 1 is for those identified as Early Career Teachers – teachers in their first or second year of teaching. Phase 2 is 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:

enquiries@ememathshub.org

Benefits

- Your pupils will be seen to elaborate when responding to questions, showing that their answer stems from secure understanding
- You will evaluate and adapt existing resources to enable them to be used to meet the needs of pupils
- You will develop an understanding of approaches to assess pupils' prior learning, so that learning sequences are planned to take this into account

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



Fully funded

Strengthening Partnerships with ITT Providers

A professional learning community for ITT providers and Maths Hub leadership

What is involved?

This project aims to form an established group of ITT representatives across the sector who are committed to developing communities of practice in order to review and evolve their provision.

Any work undertaken will be in conjunction with the leaders of maths provision in ITT institutions, to strengthen the partnership and agree actions that will support the deepening of understanding of teaching for mastery for ITT trainees at an award level. Activity may include working across hub boundaries and collaborating in larger regions.

Who can take part?

Participants will be from the ITT community; they should be directly involved in ITT with a responsibility for maths. They will represent the various ITT providers across the hub region so may include HEI, SCITT and School Direct, and represent different phases of ITT including EYTS, QTS (primary and secondary), and post-16.



Find out more

Search **strengthening partnerships with ITT providers** online or contact your local Maths Hub: enquiries@ememathshub.org

Benefits

- You and those responsible for maths provision at your institution will review your practice and programme
- You will aim to ensure trainees have some understanding of designing lessons informed by mastery principles
- Maths Hubs leaders will have a dynamic awareness of the local ITT provision and its school-based partnerships
- Maths Hubs leaders will create opportunity for collaboration and discussion across ITT providers, and use it to inform hub work

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

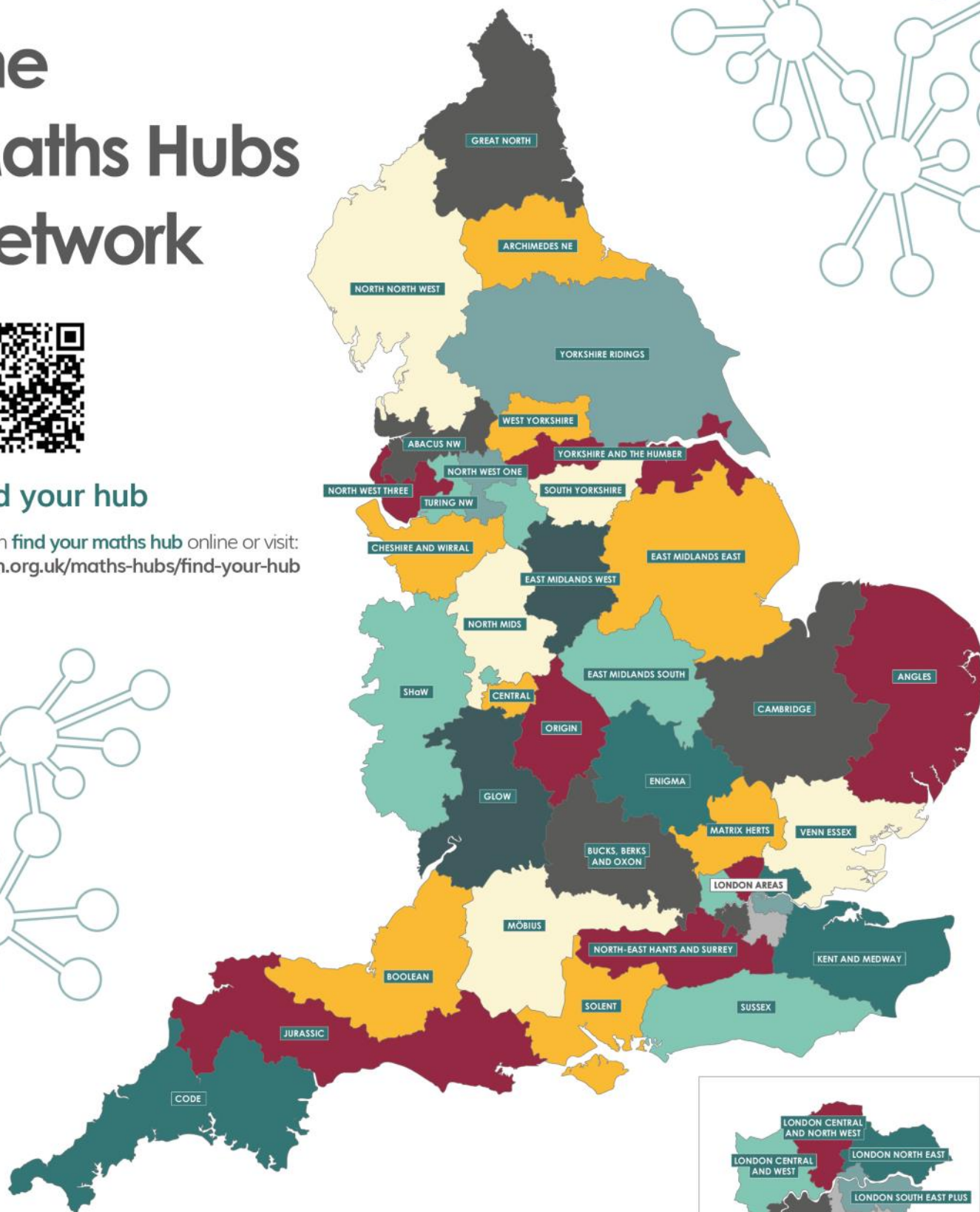


The Maths Hubs Network



Find your hub

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ncetm.org.uk/maths-hubs/find-your-hub



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