

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.



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

<h2>Work Group</h2>	<p>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.</p>
<h2>Programme</h2>	<p>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.</p>
<h2>Community</h2>	<p>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.</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:

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:

info@vennessexmathshub.co.uk

Or call us on 01206 48 99 33

www.vennessexmathshub.co.uk



NCETM

NATIONAL CENTRE FOR EXCELLENCE
IN THE TEACHING OF MATHEMATICS

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Secondary Mastery Specialist Programme



Fully funded

Secondary Teaching for Mastery

Development Work Groups

Professional development to enable you to introduce teaching for mastery across your maths department

What is involved?

Secondary maths teachers whose schools want to introduce teaching for mastery can nominate two teachers ('Mastery Advocates') to join a Work Group. Mastery Advocates then form part of a locally-based group of teachers who meet regularly to develop professional knowledge and expertise, and receive bespoke support.

In a Teaching for Mastery Work Group, teachers collaborate with colleagues from local schools, and get support and guidance from a Local Leader of Maths Education (LLME). Participants also take away ideas to help students become more confident mathematicians, ready to tackle GCSE and A level, and begin to introduce and embed teaching for mastery.

Who can take part?

This programme is for state-funded secondary schools in England. Mastery Advocates should be teachers with the commitment, experience and authority to lead developmental work across a maths department. The support of the Head of Maths, and the headteacher or a member of SLT, is also essential.

Find out more

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

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

Benefits

- Your students will develop a deep, secure and connected understanding of the maths they are learning
- You will begin to develop teaching for mastery approaches within your own classroom
- You and your head of department will begin to develop an understanding of the practices and principles aligned to secondary teaching for mastery
- You will begin to support the teachers in your department to develop teaching for mastery approaches in their practice

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



Fully funded

Secondary Teaching for Mastery

Embedding Year Support

Enhanced support for maths departments in their second year of introducing teaching for mastery

What is involved?

This project is for those departments who participated in the previous year's Secondary Teaching for Mastery Development Work Group, and who are beginning to embed teaching for mastery. Mastery Advocates will work closely with an assigned Secondary Mastery Specialist to embed teaching for mastery approaches across the whole department. Specialists will provide three days of support tailored to each school.

The focus will be on constructing or refining a coherent development plan, and supporting and leading the whole department in realising the aims of that plan. The school will also be part of a Secondary Teaching for Mastery Embedding and Sustaining Work Group with other schools.

Who can take part?

Participation is for maths departments in schools that took part in a Secondary Teaching for Mastery Development Work Group in 2021/22. Lead participants will ideally be the Mastery Advocates who participated in 2021/22 Work Groups.

Find out more

Search **secondary mastery embedding year support** online or contact your local Maths Hub:

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

Benefits

- Your students will develop a deep, secure and connected understanding of the maths they are learning
- You will begin to develop teaching for mastery approaches across your department
- You and your department will collaborate to create coherent curriculums in a culture of professional learning
- You will produce a development plan and professional development programme for the department

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





Fully funded

Secondary Teaching for Mastery

Embedding and Sustaining Work Groups

For departments that have previously participated in Development Work Groups and all Cohort 1-5 Mastery Specialist departments

What is involved?

This project is for departments who participated in a Secondary Teaching for Mastery Development Work Group, or who have a member of their department who is part of the Mastery Specialist Programme. Mastery Advocates will meet regularly throughout the year, and the content of departments' development plans will be the stimulus for how joint work will be devised and undertaken.

Focus will be on the department's planned developments, as well as sharing and critiquing them with a group of schools in a professional learning community.

Who can take part?

Participation is for schools that have either participated in Development Work Groups or the Mastery Specialist Programme. Lead participants continue to be Mastery Advocates, and key teachers from a Mastery Specialist's department. Particular Work Group sessions may also be joined by participants' departmental colleagues.

Find out more

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

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

Benefits

- Your students will develop a deep, secure and connected understanding of the maths they are learning
- You will continue to develop teaching for mastery approaches consistently across your department
- You and your department will collaborate to create a coherent curriculum in a culture of professional learning
- You will develop and implement a coherent and ambitious sustained development plan

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



Fully funded

Secondary Subject Leadership Work Groups

Professional development designed specifically for secondary heads of maths

What is involved?

Local Work Groups will follow a cycle of workshops followed by school-based tasks. Participants will support each other through the sharing of leadership strategies and practices. A vibrant professional learning community will be created through peer-to-peer discussions and expert input. Participants will also create an action plan for their department.

Much of the work will involve each individual department working on elements of their action plan and developing collaborative ways of working which support their professional development. As well as exploring the needs of their own department, participants will benefit from the expertise and experiences of the group of departments represented.

Who can take part?

The project is for secondary heads of department/subject leaders, and is open to heads of department in schools already involved with Maths Hubs and to those who are not yet involved. In their first year of engagement with this project, participants will be part of a Work Group. In subsequent years they will be part of a Maths Hub-led subject leadership community.

Find out more

Search **secondary subject leadership work groups** online or contact your local Maths Hub:

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

Benefits

- You will promote and develop a shared vision, culture and set of principles for teaching and learning in maths
- You will ensure coherence in the curriculum and provide support for teaching for mastery across the department
- You and your department will establish collaborative ways of working to support ongoing developments
- You will develop in your ability to lead change

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



Fully funded

Secondary Maths MAT Leads Programme

Professional development to support those leading maths across multiple schools

What is involved?

Now in its second year, this project supports those who lead maths across multiple schools within a MAT. Participants will also develop their role as a leader of system change, curriculum change, and teacher professional development.

The programme involves three one-day face-to-face national workshops. Within these, the cohort will be split into new and continuing participants for some sessions, with other sessions for everyone. Participants will also carry out and evaluate their own improvement initiatives, both in and between sessions, and be part of a vibrant online community.

Who can take part?

The project is for those who lead maths across multiple schools within a MAT, including at least one secondary school. This includes MAT maths leads who are continuing from 2021/22, and new participants. To better engage in the programme, participants are encouraged to have at least one school in a Secondary Teaching for Mastery Work Group in 2022/23, but this is not essential.

Find out more

Search **secondary maths MAT leads programme** online or contact your local Maths Hub:

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

Benefits

- You will promote and develop a shared vision for effective teaching and learning in maths
- You will work with subject leaders across your MAT to lead and manage maths teaching effectively, and to develop teaching for mastery approaches within your own department
- You will understand the leadership and management skills required to effectively promote and develop teaching for mastery approaches within your schools
- You will understand effective models of maths teacher professional development, the rationale for using them, and the evidence that supports them

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



Fully funded

Years 7-11 Coherence

Work Groups

Explore approaches to key topics in KS3 and at GCSE

What is involved?

Feedback from teachers, along with GCSE exam analysis, indicates there are key areas of the curriculum that students find challenging. Work Groups in this project deconstruct and analyse these areas and devise effective approaches to them, to achieve a more coherent learning journey through the secondary years.

Work Groups will follow a workshop – school-based work cycle. Teachers will identify and analyse a key topic area, work collaboratively to develop pedagogical approaches to it, and evaluate and discuss it after teaching.

Who can take part?

Participants should be secondary school maths teachers. Individuals or, ideally, pairs of teachers from a department participate, and will work with other members of their department at appropriate points. The project also offers an entry point into developing mastery approaches, or could support a department already involved in the Teaching for Mastery Programme.

Find out more

Search **years 7-11 coherence** online or contact your local Maths Hub:

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

Benefits

- Your students will gain a deeper understanding of the topic area being considered by the Work Group and the underlying maths
- You will develop a deeper insight into the maths that underpins learning in a challenging topic, through unpicking and analysing the topic
- You will identify misconceptions and plan a series of lessons to support students in the topic area
- You and your department will unpick and analyse topics to inform collaborative planning and develop of schemes of work

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

Mathematical Thinking for GCSE

Work Groups

Discover ways to help GCSE students improve their mathematical thinking

What is involved?

Exam boards often note that, when students come to GCSE examinations, AO2 and AO3 are frequently poorly addressed. This Work Group is designed to meet teachers' needs in that it provides practical and theoretical elements to support the development of students' mathematical thinking, whilst offering a manageable structure for collaborative CPD.

The Work Group is structured around four meetings, with school-based tasks to complete and reflect upon between each meeting. Day 1 is a full day (or equivalent), with Days 2, 3 and 4 being around 0.5 days of input.

Who can take part?

This is for teachers of KS4 who want to further understand mathematical thinking, and devise related practical classroom strategies. Participants will be expected to lead developments in their own department and so should have the opportunity and authority to do this effectively. The project also offers an entry point into developing mastery approaches, or could support a department already involved in the Teaching for Mastery Programme.

Find out more

Search **mathematical thinking for GCSE** online or contact your local Maths Hub:

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

Benefits

- Your students will develop a range of strategies to allow them to get started on, and to think their way through, unfamiliar mathematical problems
- You will develop your understanding of the role of reasoning and problem-solving in the curriculum
- You will develop an effective repertoire of task types that give opportunities for mathematical thinking
- You will be equipped to develop strategies and approaches to support mathematical thinking within your department

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



Fully funded

NCETM School Development Lead Programme

Support for mathematics leads whose role is to lead change in a school or group of schools other than their own

What is involved?

This programme is specifically designed to enable the leaders of maths school development to enhance leadership capacity and capability in the schools they support. It will provide regional support through workshops (face-to-face, run regionally across England, and online), practice development activities, and an online community.

Participants will plan, lead and evaluate a school development initiative for a school or group of schools, and record all planning, evaluation and reflection in an Accreditation Evidence Document.

Who can take part?

The programme is for expert leaders of maths leading change in a school/group of schools other than their own. It will benefit those with previous experience of developing maths leadership capacity, or those new to the role. Usually, participants will have completed the NCETM PD Lead Programme. Participants must commit to the full programme of activities and will need the support of the headteacher of their own school and/or MAT.

Find out more

Search [ncetm school development lead programme](#) online or contact your local Maths Hub:

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

Benefits

- You will develop your knowledge of a range of maths school development strategies and know why, when, and how to use them effectively
- You will strengthen your knowledge of the evidence base that underpins school development and change management
- You will design and lead maths development in schools, which is supported by learning and discussion in the programme
- You will increase your awareness of the skills needed by a maths school development lead and have a deeper self-awareness in relation to the role

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



Fully funded

Secondary 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 Secondary Mastery Specialist Programme enables secondary maths teachers to become experts in teaching for mastery, so they in turn can develop maths departments that are well-led, high-performing, and provide high-quality professional development through collaborative working.

Over three years, participants first work on their own understanding and practice, then work with their own department, and finally work with other maths departments. Throughout the programme, participants keep in touch with other specialists across the country to share best practice.

Who can take part?

Any teacher who is teaching maths in a state-funded secondary school and who wishes to develop both their own classroom practice and their skills in leading professional development with others can apply to become a Secondary Mastery Specialist.

Find out more

Search **secondary mastery specialist programme** online or contact your local Maths Hub:

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

Benefits

- Your students will develop a deep, secure and connected understanding of the maths they are learning
- You will develop and refine your classroom practice in line with the principles of teaching for mastery
- Your colleagues will begin to develop teaching for mastery approaches
- Your department will create a coherent and connected curriculum which promotes 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)

Secondary Early Career Teachers

Develop mathematical subject knowledge and pedagogy

What is involved?

Two maths-specific subject knowledge projects are available to support secondary 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.

The communities formed as part of the project provide an opportunity for participants' conversation to remain focused on the teaching of maths, with teachers at a similar stage of their career.

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 secondary early career teachers** online or contact your local Maths Hub:

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

Benefits

- Your students 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 students to learn and master these critical components
- You will develop an understanding of approaches to assess students' 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

Specialist Knowledge for Teaching Mathematics (SKTM)

Secondary Non-specialist Teachers

Highly-regarded professional development offering secondary non-specialist maths teachers valuable CPD focusing on subject knowledge and pedagogy

With the pressures of timetabling and the need to deploy staff flexibly, many secondary schools find that they have teachers teaching outside their specialism. This can mean teachers from a range of subject backgrounds teaching in maths departments, tackling complex topics, and having to plan lessons with unfamiliar content.

If you currently have non-specialists teaching in your maths department, and want to give them the opportunity to hone their subject knowledge and classroom practice, this programme is ideal.

Testimonials

"I have found it really useful to see different ways of explaining or teaching concepts." – Previous participant

"From attending the programme, the non-specialist teacher's confidence in his maths and the teaching of maths has improved. The expectations of his students are now higher"
– Head of Maths

Find out more

Search **secondary non-specialist SKTM** online or contact your local Maths Hub:

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

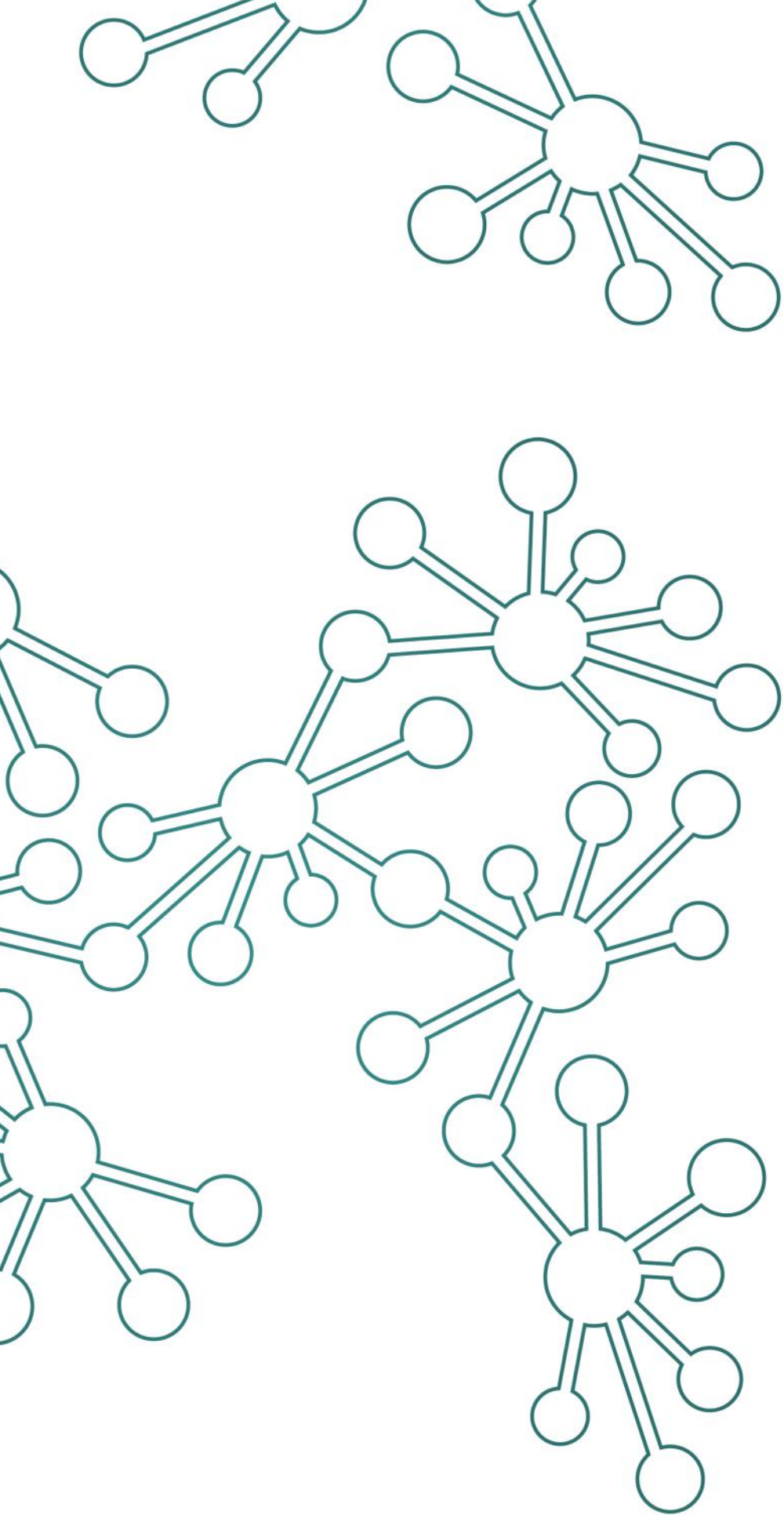
Benefits

The SKTM Programme offers participants:

- six days, or the equivalent, of face-to-face or online expert input, plus further local support
- the opportunity to be part of a vibrant and supportive online community
- access to high-quality resources

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





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