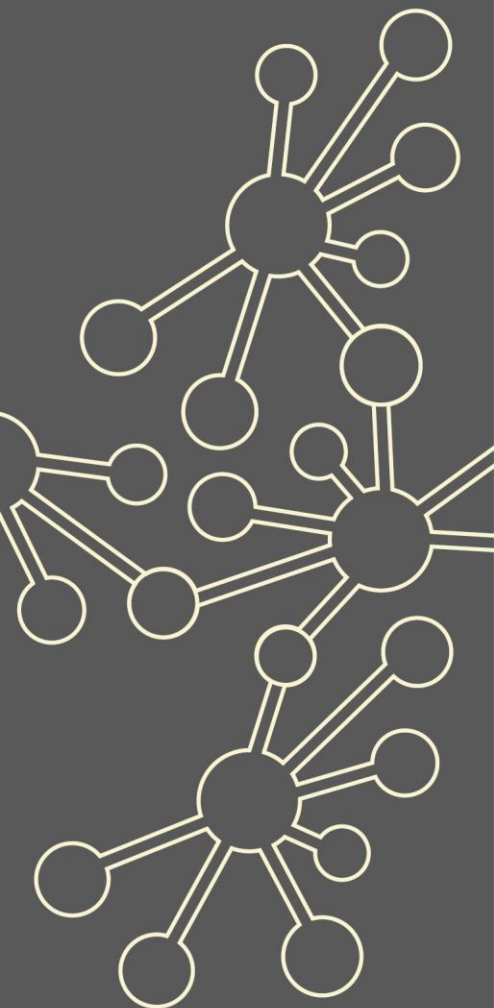


Specialist Knowledge for Teaching Mathematics – Primary Teachers

Maths Hubs Network
Collaborative Projects
2021/22

NCP21-26



Outline

This project is designed to support primary teachers in developing specialist knowledge for teaching mathematics, thus enabling them to both enhance their personal understanding, and increase their confidence in teaching and supporting pupils with maths in the classroom.

The focus is on developing understanding of knowledge and progression across the whole primary age range (rather than a particular year group).

Details

What is involved?

The programme is based on five core primary modules:

- Introductions, policy and impact on practice
- Number sense
- Additive reasoning
- Multiplicative reasoning
- Fractions.

It aims to develop the specialist maths subject knowledge needed to teach from YR to Y6. As well as online and face-to-face workshops there will also be independent study, online collaboration and school-based tasks to complete.

Who can take part?

This programme is designed for primary teachers who would like to further develop their specialist knowledge for teaching maths.

It will be particularly relevant for teachers who:

- have been teaching for 3+ years and are looking to develop a deeper understanding of maths subject knowledge across the primary age range.
- have recently moved year group/key stage or are looking to in the future
- are new or aspiring Maths Subject Leaders and want to develop their understanding of progression across the school.

What are the benefits?

Participants will:

- ✓ enhance their maths subject knowledge with an emphasis on the key structures in each mathematical area covered
- ✓ 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
- ✓ review their practice as a result of the sessions and make specific adaptations to impact on pupil outcomes.

What is the cost?

The SKTM – Primary Teachers project is fully funded by the Maths Hubs Programme so is free to participating schools.

Covid-19 Recovery

Many positive lessons were learnt from online collaboration during Maths Hubs activity in 2020/21. These will be built upon in 2021/22.

As the impact of the pandemic hopefully recedes, the result for Maths Hubs work will be a blend of face-to-face activities and frequent online collaboration.



The wider context

It has long been recognised that maths teaching is enhanced when the teachers are confident about the subject matter. Seabourne's work over the period of 2004-06 found that Subject Knowledge Enhancement (SKE) courses led to 'improvements in subject knowledge, attitude, understanding and confidence'. Gibson, O'Toole, Dennison & Oliver's (2013) report on SKE courses across all subjects in which SKE is offered finds that levels of subject knowledge and confidence in the subject are dramatically enhanced on completion of SKE courses.

Maths Hubs work with a range of partners to ensure there is effective professional development of new teachers of maths in primary and secondary schools (and other maths classroom practitioners), so that they have the specialist knowledge required to support the learning of maths. This project is offered to impact on developing the subject knowledge and pedagogical knowledge for all practitioners teaching and supporting the learning of maths.

Expectations of participants and their schools

Participants and their schools must be able to commit to the full academic year's programme. It is important that the teacher applying can attend all of the face-to-face and online workshops and, alongside this, the school should be able to support the teacher with time between the workshops to complete both the school-based tasks and independent study. There is also the expectation that teachers regularly engage with both the online community and the evaluation process throughout the year.

Further details

Who will lead the programme?

Vicki Giffard – Primary Mathematics Consultant

Where and When?

Hallam Fields Primary School, Long Meadow Way, Birstall, Leicestershire

Introductory session and Number Sense: (online) 1:30pm-3:45pm Tuesday 2nd November 2021 (Introductory session will be from 1:30pm to 2:15pm)

Number Sense (face-to-face): 9:30am-3:00pm Thursday 18th November 2021

Additive Reasoning (online): 3:30pm-4:30pm Wednesday 5th January 2022

Additive Reasoning (face-to-face): 9:30am-3:00pm Friday 21st January 2022

Multiplicative Reasoning (online): 3:30pm-4:30pm Tuesday 1st March 2022

Multiplicative Reasoning (face-to-face): 9:30am-3:00pm Wednesday 16th March 2022

Fractions (online): 3:30pm-4:30pm Wednesday 18th May 2022

Fractions (face-to-face): 9:30am-3:00pm Tuesday 7th June 2022

NB: For the introductory session, a member of the SLT or the Maths Subject Leader should also attend the first hour so that they have the information about both the overview of the programme and how they can offer support with the tasks back in school.

More information

Please visit our website for more information about East Midlands South Maths Hub and our Work Groups within the National programme

www.emsmathshub.org.uk

