

Primary Teachers

Specialist Knowledge for the Teaching of Mathematics programme

Maths Hubs Network Collaborative Projects 2021/22

NCP21-26



Fully funded by the Maths Hubs Programme so is free to participating schools.

Outline

This programme is designed to support primary teachers in developing specialist knowledge for teaching mathematics, thus enabling them to understand, teach and support pupils in maths in the classroom. This programme is designed for teachers who would like to further develop their specialist knowledge for teaching maths. It will be particularly relevant for teachers that have moved phases or teachers that have not received maths-specific training.

Details

What is involved?

The model for this programme is four PD days with in-school work between these days plus a short introductory session. Schools are encouraged to engage at least two participants in a group, where possible, in order to maximise learning and impact. We are running this programme online to allow access across the hub region.

Participants will be supported to:

- Make carefully considered changes to their practice
- Observe and analyse the impact of these changes on learners (in particular, focus learners)
- Reflect on the implications
- Share thinking and findings

What are the benefits?

Participants will:

- ✓ Actively explore the research question 'How can we support learners to develop a relational understanding of multiplication, division and fractions?'
- ✓ Enhance their maths subject knowledge with an emphasis on the key structures
- ✓ Understand key elements of multiplicative reasoning and how understanding can be supported, including attending to language, structures and representations
- ✓ Review their practice as a result of the sessions and make specific adaptations to have an impact on pupil outcomes.

The wider context

Multiplicative reasoning is essential to understanding the number system and underpins several key aspects of work in number, including rational number, ratio and proportion and percentages. This programme will consider what is effective in the learning and teaching of mathematics, with a focus on multiplicative reasoning, specifically:

- Unitising and multiplication as repeated addition
- Structures of multiplication
- Structures of division
- Understanding fractions within multiplicative reasoning

Expectations of participants and their schools

Schools must be able to commit to the full programme. This involves a total of one short introductory session and four full days as well as classroom and school-based activity. The days include: online interaction as a group; collaborative planning of teaching sessions in trios; teaching of planned sessions with groups of focus learners; videoing learning; and sharing reflections. Participants should also be supported by their school leadership to explore outcomes from the project with other colleagues in their school. Head teachers and subject leaders are invited to a presentation session on the final day where participants will share the impact of their work and learning in the group.

Workshop details

Workshops will be online and led by Louise Freir and Ruth Trundley

Workshop 1: Friday 7th January 15:00 – 16:00

Workshop 2 – Friday 14th January 09:00-15:30

Workshop 3 – Wednesday 16th February 09:00-15:30

Workshop 4 – Wednesday 30th March 09:00-15:30

Workshop 5 – Thursday 28th April 09:00 – 15:30

Link to expression of interest form [here](#).