

## December 2025 Newsletter

It has been a busy and productive term at the Maths Hub. Working with 224 schools across the London region, we have launched 15 primary, five secondary, one post-16 and two cross-phase Work Groups, nine communities and nine SKTM programmes! We have leadership programmes in place too - Primary, Secondary and Further Education Mastery specialists, Professional Development Leads and School Development Leads. Truly something for everyone, and we are so pleased to have you on board!

Do look out for applications opening for 2026-27 maths leadership programmes [here](#).

Please put **Thursday 2 July 2026** in your calendars. We have [Peps McCREA](#) joining us for a conference-lite morning – more details to follow in the Spring Term.

We wish you all a very Happy Christmas, and restful break!

The London South West Maths Hub Team



### Early Years

The Specialist Knowledge in Teaching Mathematics (SKTM) Early Years Spatial Reasoning programme is off to a fantastic start! Led by our skilled Cohort Lead Georgina, the group has met twice so far and are really engaged in working together to develop their own subject knowledge and pedagogy.

The group have been reflecting on their own practice and exploring what spatial reasoning means and can look like in practice. It's been inspiring to hear the passion from teachers during discussions, particularly around language use - such as clarifying when to use terms like least or fewer - and how to model this effectively in both planned and spontaneous interactions. With this year's focus on developing children's reasoning, it's exciting to see participants' own understanding evolve as the sessions progress.

#### Least and Fewest

Write sentences to use this comparative vocabulary.



Fewer refers to things that can be counted.

#### Language and gesture

Look at this picture and discuss the process this boy has gone through...

- What has he done?
- What could he be saying or thinking?
- What is he doing in the picture?

Think of your class yesterday and remember some conversations you had with a child when they were using gesture and spatial language.



Photo: Simon Lewis/Early Childhood Maths Group



## Primary: Primary Teaching for Mastery

This year, we have seen the introduction of collaborative school visits in our Teaching for Mastery (TfM) Work Groups. This is an opportunity for a small group of maths leads to collaborate in one host school in order to 'practise maths leadership'.

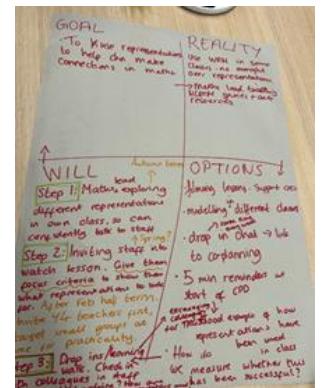
One group collaborated based on their priority of embedding Teaching for Mastery with fidelity and consistency. Each school has chosen to focus on embedding one of the Five Big Ideas of Teaching for Mastery. During this visit, the focus was on Representation and Structure: "K shared with us her vision for teachers to use representation and structure more consciously in their lesson design to help reveal underlying structures and for pupils to make connections."

In the role of facilitator, the Work Group Lead allowed the maths leads to plan the professional activity for the visit. "The day will roughly follow the format below, but I would love your further input if there's anything you'd like to talk about in particular. The idea is that these sessions are led by you and what you would like to focus on."

It was so encouraging to see the maths lead at the school open her classroom for the other maths leads to observe learning so that they could then discuss and reflect on the lesson together.

With the focus this year in our TfM Work Groups on manageable and sustainable approaches to professional development, the group used the GROW coaching model to help think about what effective PD K could implement in her school to address her priority.

While this was hosted in one school, this was an opportunity for maths leads to practise various leadership skills: collaborative professional development, observing and reflecting on learning as well as planning a programme of professional development that will support other teachers to build knowledge and develop their classroom practice. They will be able to take their learning from this opportunity back into their own schools.



## Secondary: Secondary meets Primary

Our Secondary Subject Leadership (SSL) community, which now has 33 active members, were given the opportunity to see what their future students were experiencing in primary.

The secondary Heads of Department (HoDs) were lucky enough to spend a full day at one of our Teaching for Mastery (TfM) primary schools. The day included the opportunity to watch a Year 6 lesson, a discussion with both the classroom teacher and Deputy Headteacher (also a Primary Mastery Specialist) about how they plan lessons and use the non-statutory guidance / NCETM teaching resources, and finally share how each secondary school approaches transition to secondary.



Post-discussion of the Year 6 lesson highlighted:

- both similarities and differences in the primary and secondary lesson model
- the precision of mathematical language used by both teacher and pupils
- opportunities for Assessment for Learning
- access points for all pupils to engage in learning mathematically
- the impact of effective behaviour for learning systems
- how long the teacher taught from the front - a 'ping pong' approach requiring pupils' participation throughout - with less time given to independent practice.



A wealth of transition strategies was shared by all the HoDs; looking at what can be done to support students before they reach secondary and once they arrive in Year 7.

Many of the secondaries who attended mentioned the value of the Maths Hubs work groups in supporting transition e.g. [Year 5-8 Continuity](#) and [Securing Foundations for Year 7](#).

## Secondary: Mathematical Thinking Work Group applications OPEN!

The Mathematical Thinking Work Group explores tasks and approaches that support and embed deeper mathematical thinking and problem solving. Through the year participants will work on different task types and reflect on their effectiveness within their own context.

Quotes from last year's participants:

- *'I thoroughly enjoyed all the three sessions of the Work Group: they enhanced and enriched the quality of my lessons, increasing students' engagement.'*
- *'[We were] shown resources that are easy to implement in lessons without lots of extra workload, but that can have a big impact!'*
- *'I've learned some new ways to introduce or teach questioning and the analytical skills needed to unpick problem solving questions.'*

The Work Group consists of 3 full days and will be hosted at Raynes Park High School.

- Day 1 - Tuesday 13th January 2026
- Day 2 - Wednesday 11th March 2026
- Day 3- Thursday 16th April 2026

To join this Work Group, please [complete this application form](#).

## Post-16

Most of London's Post-16 Work Groups, which cover Level 2 resits, Core Maths and A level, have now started, with some limited availability in the following group:

Developing Core Maths Pedagogy (for experienced teachers), starting on Thursday 22 January 2026 in Leyton Sixth Form College. More information and an application form [are available here](#).

As usual, our Work Group Lead for Developing A level Pedagogy got everyone's brain working and his session was packed full of insights into how teachers can support their students to not only succeed in the examinations, but also to think more deeply about the maths they're studying.

One example of an activity to get students talking and identifying both connections and differences is 'Which one doesn't belong?' Here is an example he shared – what reasons could you give for each example not belonging and how could you use this with students?

| A)                             | B)                      | C)                         |
|--------------------------------|-------------------------|----------------------------|
| $\int_0^1 (3x^2 + 1)e^{3x} dx$ | $\int 5x e^{3x^2+1} dx$ | $\int (x^3 + 1) \ln 4x dx$ |



We have two SKTM Primary ECT programmes running in parallel this year, and Lorraine draws on every possible and appropriate representation to further teacher understanding of number. Here she has created a human number line, enabling them to visualise the concept of difference!

Do sign up for one of our **ECT open lessons** in the spring term. Come and see a lesson and discuss your thinking with others.

There is an option available for Year 1 through to Year 6 at primary and there are three secondary options available too for Y7, Y8 & Y10! [More details are available here.](#)

### Other news

A report has been published of our work alongside three other hubs to share research findings on embedding teaching for mastery approaches in Secondary Schools. A copy of this research paper was presented at the British Society for Research into Learning Mathematics conference in June 2025. You can [read a copy here](#).

The paper draws from a wider research project exploring Teaching for Mastery in secondary schools in England. It aims to understand more about how Teaching for Mastery becomes embedded within mathematics departments and school networks.

The paper examines how the Teaching for Mastery approach is understood by mathematics teachers and senior school leaders; how teachers utilise the mastery approach in their classroom practice; the role and impact of the NCETM-coordinated Maths Hubs programme; and how Teaching for Mastery reaches beyond the Mastery Specialist. The successes and challenges experienced by teachers and schools are discussed, and the paper identifies the conditions which enable embedding Teaching for Mastery in secondary schools, reflecting on how implementation can be facilitated.

### And finally!



#### The Christmas Cookie Tin Puzzle

Santa, an elf, and a reindeer are sharing a big tin of Christmas cookies.

1. First, **Santa** takes half of the cookies **plus 2 more**.
2. Then **the elf** takes **half of the cookies that are left plus 2 more**.
3. Then **the reindeer** takes **half of the cookies that are left plus 2 more**.
4. After that, there are exactly 3 cookies left in the tin.



👉 How many cookies were in the tin to begin with? (The answer is hidden in the newsletter!)

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