

Primary Advantage Maths Conference 2022

Put your pens down – developing pupils’ mathematical thinking

Wednesday 15 June 2022

Holy Trinity Primary School, E8 3DY,
9.15am-3.15pm

Book your place here:

<https://forms.gle/xkhU4yvfVLQVgdm36>



One of the fundamental goals we desire for our children is that they can think mathematically when solving problems, that they can all independently and confidently engage with mathematical investigations and that they can identify what skills they have in their “toolkit” (what they have previously learned) that will help them to solve real life problems.

During this year’s PA Maths Conference, we will unpick what it means to plan for and develop true mathematical thinkers; pupils who can mentally simplify mathematical processes, recognising patterns and connections within a problem so that, rather than simply doing the maths (often by picking a pen up and carrying out a written calculation), they have a clear and deep understanding of what they are required to do.

Keynote Speaker – Dr. Celia Dunne



We are delighted to welcome Dr. Celia Dunne as our keynote speaker this year. Celia is a Primary Mastery Specialist and former Assistant Maths Hub Lead at London North East Maths Hub. She has worked as a classroom teacher and leader, as well as in advisory and teacher training roles, supporting teachers, leaders and schools across London and Essex. Her keynote speech will frame our day with the following theme:

Developing Pupils’ Thinking, Reasoning and Discussion - how to make a mathematician:

Have you heard the phrase “the answer is only the beginning”? We might agree wholeheartedly with the premise but is higher-order mathematical thinking really prized and promoted over procedural accuracy in our classrooms? This session will explore how we can support children to think more deeply about and to reason with mathematics, looking, in particular, at the importance of mathematical communication and lesson design.

Workshops & Ofsted Deep-Dive Experiences

The keynote speech is followed by a range of practical workshops exploring ideas, tools and strategies to use in the primary classroom, from EYFS to KS2, to develop thinking, communication and problem solving skills in children. We end with a panel discussion and Q&A led by several colleagues sharing experiences and top tips from their recent Ofsted deep dives in maths.

Cost: PA Maths members: 1 place included in membership; additional places are charged at the discounted rate of £115. Non-members: £230 per person.

Programme

9.15am	Registration / workshop sign-up / tea & coffee
9.30am	Welcome & introductions. Framing the day: Sarah Mather, PA
9.45am	Keynote Speech & discussion: Dr. Celia Dunne- Mathematical Thinking
10.45am	Dr. Celia Dunne- Q&A
11.00am	Break
11.15am	Workshops of your choice – sign up on arrival – see below for workshop details
12.15pm	Lunch provided
1.00pm	Workshops of your choice – sign up on arrival – see below for workshop details
2.00pm	Ofsted – unpicking the deep dives: Ben Bignall, Lee Dobson, Sophie Lawes
3.00pm	Final discussion and reflections on the day – Sarah Mather, PA
3.15pm	End

Workshops Choose 1 workshop from each time slot below:

11.15am – 12.15pm:

(a)Using Curriculum Prioritisation to Unlock Mathematical Thinking - Ian Pegrum

The aim of this session is to look at how the NCETM's Curriculum Prioritisation materials can be used to plan opportunities for children to develop their mathematical thinking. We will work through an example KS1 lesson, then explore and unpick the models and representations which help unlock children's understanding and how these concepts can apply to learners of all ages.

(b)**Deepening Pupils' Understanding of Fractions - Tim Harrington:** Why can fractions be such a challenging concept for some pupils to grasp (as well as, often, terrifying to teach!)? This workshop will focus on developing a deep and resolute understanding of fractions through exploring different ways of representing fractions with a range of manipulatives and visual representations. Possible difficulties with interpreting representations will be explored as well as potential misconceptions. Ideally suited for teachers and leaders based in KS2.

1.00pm-2.00pm:

(c)**The Power of Cuisenaire Rods - Lee Dobson:** In this session we will explore the use of Cuisenaire across the primary mathematics curriculum. With the theme of the day being 'put your pens down', we will be doing just that, exploring how the resource can be utilised in EYFS and progressed throughout the rest of the primary phase to solve a variety of reasoning and problem-solving questions, in order to build conceptual understanding.

(d) How children in early years develop mathematical thinking - Sophie Lawes

All children are entitled to a strong mathematical foundation, enabling them to show the Characteristics of Effective Learning in mathematics. Early years teaching is underpinned by practitioners' understanding of children's possible mathematical learning trajectories and a belief that all children are effective mathematical learners, although their previous experiences may differ. Early mathematical understanding is achieved during both child initiated play and adult teaching through meaningful contexts, so that all children have daily moments where they explicitly engage with mathematical concepts and language. In this workshop we will explore:

- how to engage children in low floor, high ceiling problems to solve creatively
- how to engage children in using a repertoire of mathematical communication and representing mathematical ideas in their own way

For more information on our workshop leaders please see below.

Workshop leaders and conference presenters:

Ben Bignall is an experienced Deputy Headteacher working in Hackney and recently took his school through their Ofsted inspection. Ben will share this experience with us at the conference. Ben has extensive experience in establishing and embedding key whole-school policies and practices at a school-wide level to develop children's work in Mathematics and the wider curriculum. His work as an SLE has seen him support schools both within London and in the North East of England. Ben has a keen eye for curriculum development, ensuring it is in line with research and pedagogy and weaving it through all aspects of the school and has recently written publications for The Chartered College of Teaching and helped co-write The Learning Curriculum as a Visiting Fellow at Ambition Institute.



Lee Dobson is a Headteacher at a two-form entry primary school in Peterborough, which is part of the Lime Trust. The Lime Trust have been using the Primary Advantage Mathematics Programme for over five years. Lee is a Mathematics Specialist Teacher and SLE in mathematics. Prior to becoming a Headteacher, Lee has taught in a range of year groups across the primary phase. He has led mathematics at school level and now leads the subject across the Lime Trust. His expertise is in the use of manipulatives across the primary mathematics curriculum and he has led a wide range of CPD in this area for the Lime Trust, a range of other Trusts and the Peterborough Local Authority.

Tim Harrington is an NCETM Professional Development Accredited Lead and a Primary Maths Mastery Specialist who has worked with London North East and South East Plus Maths Hubs. He is an Assistant Headteacher, Assessment and Maths Lead with a passion for maths and is driven to inspire confidence and joy of maths for both colleagues and pupils. Tim has worked with a range of schools across Newham, Tower Hamlets and Southwark to support the implementation and sustaining of a teaching for mastery approach.

Sophie Lawes joined PA in 2017, having worked in Camden and Islington. She is currently the federation EYFS leader and enjoys working across all of our schools. Her primary role is to work alongside school leaders to provide leadership and co-ordinate the work of school based EYFS leaders to ensure the best quality provision in our schools and for our children. The role provides training, support, coaching and mentoring, monitoring and quality assurance including moderation of assessments. She is an NCETM Workgroup Lead with the London North-East Maths Hub. Sophie leads all the PA Maths EYFS training and wrote the new EYFS PA Maths Planning Guide.

Sarah Mather is a Leader of Learning with Primary Advantage and a lead practitioner on the PA Maths Programme. She has previously been a Head of School in Hackney and has over 10 years of experience as a senior leader. Consistently judged to be an outstanding classroom practitioner, Sarah has used her expertise to significantly raise pupil achievement, predominantly with underachieving pupils. She works in collaboration with the NCETM's North East London Maths Hub to design and deliver programmes on maths mastery, with a particular focus on lesson design.

Ian Pegrum is a primary school teacher and maths lead with over a decade of teaching experience across KS1 and KS2 settings in Thurrock, Barking & Dagenham, Queensland (Australia) and Haringey. He is also an NCETM Professional Development Accredited Lead and a Primary Maths Mastery Specialist who has supported numerous cohorts of teachers to establish mastery practices in their settings. He is an advocate for Maths Mastery and passionately believes that maths is for everybody.



For more information about the conference contact:

palearning@primaryadvantage.hackney.sch.uk 020 7254 1010 (option 5)

Book your place here: <https://forms.gle/xkhU4yvVLQVgdm36>

www.primaryadvantage.hackney.sch.uk