Key debates

What is Greater Depth in Maths and are teachers equipped to identify it?

Are teachers using TAs effectively during maths lessons?

Fluency is not just the recall of number facts but Number Sense – interacting with numbers flexibly.

Who should I follow on Twitter?

There are many fantastic practitioners to follow on Twitter – in lots of cases they will also tweet blog posts to follow up as well. These are just a few of the people whose ideas and practice I have found particularly useful.

Jo Boaler @joboaler

Craig Barton @mrbartonmaths

Gareth Metcalfe @gareth_metcalfe

Youcubed @youcubed

Thirdspacetweet @thirdspacetweet

White Rose Maths @WhiteRoseMaths

The Mathematical Association @Mathematical_A

Teachers of Maths @ATMMathematics

researchEDHome @researchEdhome

Matt Hood @matthewhood

Dan Meyer @ddmeyer

CTSN Research & Development Group

Follow @CamTSNet for more 'subjects on a page'

'Primary Maths on a Page'

On The Blogosphere

'Mr. Barton Maths Podcast – Teaching From Home Series' Craig Barton's podcast is a great resource at the best of times but he has created a teaching from home link to support teachers through these unusual times. As well as episodes on technology, there is help with setting appropriate work, safeguarding and differentiation while coping with looking after your own family and maintaining your personal wellbeing. With teachers working hard to support pupils and parents alike in a variety of home settings and contexts, this is a very useful resource to dip into. http://www.mrbartonmaths.com/podcast/

If you are looking to maintain some CPD through this lockdown period then Research ED has created a link on their website for Research ED home, which is a live video everyday at 11am with a speaker talking around a particular topic, they could be a teacher, academic or other educational practitioner. All the episodes are archived so you won't miss any and they cover a range of topics to support CPD through this home learning period. Although not a subject specific maths resource, they will allow teachers to pitch their lessons, use appropriate technology for their settings and maintain their wellbeing. https://researched.org.uk/researched-home-2020/

Also, well worth a look is the 'NCETM Maths Podcast' which gives advice to schools who are on their Maths Mastery journey with contributions from Maths Mastery Specialists and Headteachers. The core principles of Mastery are key to developing enquiring, pro-active and resilient mathematicians who have a love and passion for the subject. If you're looking for a starting point try, 'One Primary School's Teaching for Mastery Journey' which is a discussion with the head of Slade Primary School in Birmingham. https://www.ncetm.org.uk/resources/51240

Finally, keep an eye out on Ted Talks Education to support your subject knowledge and passion for Maths. Check out, Eduardo Saenz de Cabezon – *Math is Forever*, who talks about what is maths for – truth and beauty. https://www.ted.com/talks/eduardo_saenz_de_cabezon_math_is_forever?language=en

What should I read?

We all know that a teacher's time is finite and as soon as you rub off a couple of jobs on your 'To Do List' three or four more pop in on the end. That said I am a firm believer in reading around your subject and finding the time to do this will not just be rewarding for yourself as a classroom practitioner but will allow you to design lessons that both engage and challenge pupils while hopefully fostering a love of Maths. The book I continually return to and has pride of place in my classroom bookcase is ***'Mathematics Explained for Primary Teachers'*** by Derek Haylock. Before we get to fluency, reasoning and problem solving it is essential we understand the topic we are about to teach - the key concept, the correct mathematical language associated with it and how it links to different strands. A must not just for NQT or RQT but all teachers regardless of their experience.

'Improving Mathematics in the Early Years and Key stage 1 – Guidance Report' is a publication by the Education Endowment Foundation and contains some excellent insights into developing maths across the EYFS and Key Stage 1. As a Maths Lead my personal strength has always been in KS2 so I found this a really useful document to support my understanding and indeed my school colleagues across both these phases. With guidance on understanding how children learn maths, with integrating maths learning throughout the day and through a variety of contexts, to the importance of manipulatives and representations through to building on prior knowledge all with clear and concise examples. A useful document for all Maths Leads and practitioners across EYFS and Key Stage 1.

Another book that I find particular helpful is, ***'Mathematical Misconceptions'*** by Anne D Cockburn and Graham Littler. It provides an insight into how misconceptions can develop in a learner and how we as practitioners can address them. Highlighting the fact that these misconceptions are 'golden' moments in a lesson, not to be swept over but to be examined, analysed and discussed by pupils with the teacher acting as a facilitator, allowing a deeper understand to develop.

Finally, I can't end without mentioning, ***'The Elephant in the Classroom'*** by Jo Boaler, a great book that I find myself continually returning to for reference.