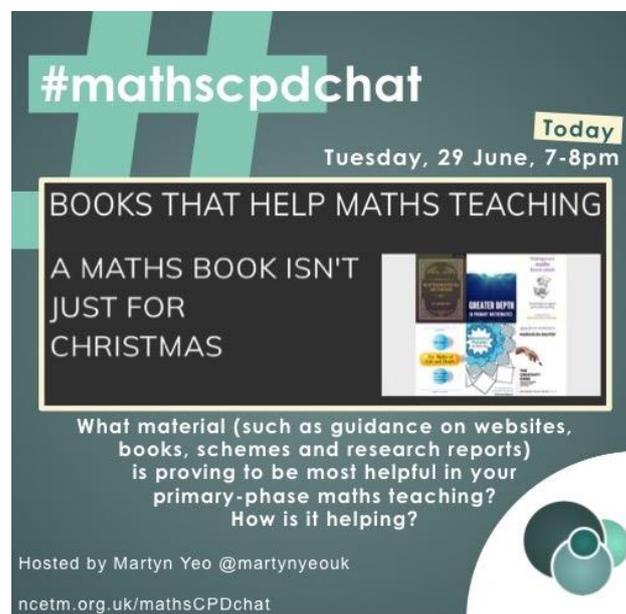


## #mathscpdchat 29 June 2021

What material (such as guidance on websites, books, schemes and research reports) is proving to be most helpful in your primary-phase maths teaching? How is it helping??

Hosted by [Martyn Yeo](#)

*This is a brief summary of the discussion – to see all the tweets, follow the hashtag #mathscpdchat in Twitter*



#mathscpdchat

Today  
Tuesday, 29 June, 7-8pm

BOOKS THAT HELP MATHS TEACHING

A MATHS BOOK ISN'T JUST FOR CHRISTMAS

What material (such as guidance on websites, books, schemes and research reports) is proving to be most helpful in your primary-phase maths teaching? How is it helping?

Hosted by Martyn Yeo @martynyeouk  
ncetm.org.uk/mathscpdchat

Among the links shared during the discussion were:

[Mr Yeo's Maths Mastery](#) which is [Martyn Yeo](#)'s own YouTube channel. In his videos Martyn demonstrates how various manipulatives and representations can support the development of understanding about, and fluency in performing, arithmetical operations. His playlist includes a wide range of material, arranged in diverse categories such as 'DfE guidance', 'ATM Maths Snacks' and 'NCETM maths', that Martyn has selected to inform and inspire primary mathematics teaching. It was shared by [Mark Williams](#) and [Martyn Yeo](#)

[Primary Mastery Professional Development Materials: Fractions Spine 3](#) which is guidance material from the NCETM. It is divided into ten segments for Years 3-6, plus a preliminary segment for Key Stage 1. It includes text and images (which are also presented as animated PowerPoint slides that can be used in the classroom, and are designed to further enhance teacher knowledge). It was shared by [Jenni](#) and [Martyn Yeo](#)

[Let's Think Maths](#) which are resources from [Let's Think Maths \(CAME, Cognitive Acceleration in Maths Education\)](#) that are designed to support the development of mathematical reasoning and problem solving from Early Years to Key Stage 3. The lessons complement a mastery approach to teaching and learning. It was shared by [Sarah Slattery](#)

[Reasons to Reason in Primary Maths and Science](#) which is a book by [Alison Borthwick](#) and Alan Cross. The authors explore what reasoning in primary mathematics (and reasoning in primary science) *is* and what it *is not*. It includes examples of how reasoning in primary mathematics can develop. It was shared by [Sarah Slattery](#)

[The Elephant in the Classroom: Helping Children Learn and Love Maths](#) which is a book by [Jo Boaler](#). The author identifies problems facing children in mathematics classrooms, and offers some solutions. It was shared by [Sarah Slattery](#)

[Maths Concept Cartoons](#) which is a book by John Dabell, Brenda Keogh and Stuart Naylor. Simple cartoon-style drawings present pupils with misconceptions (identified through extensive research) and generate discussion and argument. It was shared by [Sarah Slattery](#)

[Setting pupils up for success in maths](#) which is an Education Endowment Foundation (EEF) podcast. The host, Alex Quigley, discusses best practice in maths teaching with Simon Cox, Craig Barton and Fliss James. The discussion addresses issues that include those related to establishing strong foundations in the early years, and making purposeful use of pupils' misconceptions. It was shared by [Jenni](#)

[Using an abacus-like rekenrek to help children develop confidence and fluency with number](#) which is a NCETM video by [Debbie Morgan](#), the NCETM's Director for Primary. It was shared by [Martyn Yeo](#)

[Rekenrek101](#) which is [Amy How](#)'s website. (During the chat Amy tweeted 'Keep an eye out for some mathematicians that will show how exciting the rekenrek is! Check out my website!'). It was shared by [Amy How](#)

[Double Facts using the Rekenrek](#) which is a YouTube video in which [Amy How](#) demonstrates ways of using the 20-bead rekenrek 'to teach Doubles'. It was shared by [π/8 Chadwick](#)

[Amy How: Live Stream Rekenrek Demo and Q&A](#) which is a recording on YouTube of a live stream discussion between [Amy How](#) and [Atul Rana](#) in which Amy demonstrates 'the use of a 2-

row and 10-row rekenrek to establish a strong foundation of number work and place value'. It was shared by [Atul Rana](#)

[Key ideas in teaching mathematics](#) which is research-based guidance for teachers of mathematics by [Anne Watson](#), [Keith Jones](#) and Dave Pratt, with suggested classroom tasks. It was shared by [Mary Pardoe](#)

[Thinking Deeply About Primary Mathematics](#) which is a book by [Kieran Mackle](#). The author explores theories about, and ideas and practices in, primary-phase mathematics teaching. The chapters include explanations, examples and tasks designed to help increase the confidence of primary teachers when they are helping their pupils learn (to do) mathematics. It was shared by [Mark Williams](#)

[Thinking Deeply About Primary Mathematics: Podcast](#) which is a collection of podcast interviews on [Kieran Mackle](#)'s website in which Kieran talks to many different primary-phase maths educators about a wide range of ideas and issues in the mathematics teaching and learning of primary-age pupils. It was shared by [Mark Williams](#) and [Atul Rana](#)

[Thinking: Primary Mathematics](#) which is a blog post by [Tom Oakley](#) in which you will find his suggestions for books, websites and blogs that can 'support your thinking about primary mathematics'. It was shared by [Tom Oakley](#)

[Readings and Musings](#) which is [Lisa Coe](#)'s blog. It is, in Lisa's own words, 'a collection of summaries, musings and thoughts around educational books and readings', and includes her reflections on some recently published books about teaching and learning maths (such as *Mathematical Tasks* by [Chris McGrane](#) and [Mark McCourt](#) and *Visible Maths* by [Peter Mattock](#)). It was shared by [Lisa Coe](#)

[Bernie Westacott: Teaching maths with visuals and manipulatives](#) which is an episode of the Mr Barton Maths Podcast that was also filmed. [Bernie Westacott](#) talks to [Craig Barton](#) about teaching mathematics 'in a visual way, via the use of manipulatives and other representations'. It was shared by [Atul Rana](#)

[Neil Almond: Third Space Learning](#) which is, in words tweeted by [Neil Almond](#) during the chat, 'my author page that has links to all that I have written'. It was shared by [Neil Almond](#)

[Just Imagine: Mathematics books](#) which is a collection of books about mathematical topics that have been selected by a publisher as suitable for reading by/to primary-age children. It was shared by [Tom Oakley](#)

[Ofsted's research review: standing on the shoulders of \(maths\) giants?](#) which is an ArkCurriculum+ blog by Laura Tyler. It was shared by [Lisa Coe](#)

[#MathsChatLive with @MissSDoherty @IWilliamsJones @Kieran\\_M\\_Ed](#) which is the recording of a #MathsChatLive discussion (pscp.tv) about primary-phase mathematics teaching. It was shared by [Atul Rana](#)

[#MathsChatLive with @MissSDoherty \(Shannen Doherty\) and friends](#) which is the recording of a #MathsChatLive discussion (pscp.tv) about the book *100 Ideas for Primary Teachers (Maths)* by [Shannen Doherty](#). It was shared by [Atul Rana](#)

The screenshots below, of chains of tweets posted during the chat, show parts of three conversations about material that teachers have engaged with and found to be helpful. **Click on any of these screenshots-of-a-tweet to go to that actual tweet on Twitter.**

The conversations were generated by this tweet from [Martyn Yeo](#):



**Martyn (He/Him)** @martynyeouk · 17h



Q1 Let's get going...

What material (such as guidance on websites, books, schemes or research reports) is proving most helpful in your primary maths teaching?

[#mathscpdchat](#)



mathscpdchat

and included these from [Lisa Coe](#) and [Martyn Yeo](#):

-  **Lisa** 🌿 @Elsie2110 · 17h ...  
Replying to @martynyeouk and @mathscpdchat  
A huge melting pot of stuff! I learned a lot from my time at Ark's Maths Mastery; NCETM spines are useful; books like Visible Maths and the MEP website of wonders! #MathsCPDChat
-  **Martyn (He/Him)** @martynyeouk · 17h ...  
Going to put you on the spot - can you rank them in order of impact for your school? #mathscpdchat
-  **Lisa** 🌿 @Elsie2110 · 17h ...  
Not easily! I've been developing the Trust wide maths curriculum so all of it has come into play. Experience at MM would be top, I think, but the rest has impacted in lots of ways. #MathsCPDChat
-  **Lisa** 🌿 @Elsie2110 · 17h ...  
Replying to @Elsie2110 @martynyeouk and @mathscpdchat  
Oooh AND this year the Maths Hub Firm Foundations programme has taught me SO much about EY Maths. #MathsCPDChat

these from [Sarah Slattery](#), [Martyn Yeo](#) and [Lisa Coe](#):

-  **Sarah Slattery** @MissSlatterySTJ · 17h ...  
Replying to @martynyeouk and @mathscpdchat  
[@WhiteRoseMaths](#) planning and [@NCETM](#) spines are incredible. Also anything by [@joboaler](#) #mathscpdchat
-  **Martyn (He/Him)** @martynyeouk · 17h ...  
Which one would you say has had the most impact for you?  
#mathscpdchat
-  **Sarah Slattery** @MissSlatterySTJ · 17h ...  
I think [@joboaler](#) mindset work has made the biggest difference overall. Also [@LetsThinkForum](#) resources and training on questioning.
-  **Martyn (He/Him)** @martynyeouk · 17h ...  
Tell us more about [@LetsThinkForum](#)  
What impact has it made for you? #mathscpdchat
-  **Sarah Slattery** @MissSlatterySTJ · 17h ...  
They have amazing explorative lessons which go through different stages and it's all about the chn showing, explaining and voting on ideas without a yes or no from the adult. Lots of, "can you explain" #mathscpdchat
-  **Martyn (He/Him)** @martynyeouk · 17h ...  
Wow! Sounds great! And have you used this across your school? Have you seen impact for certain age groups? #mathscpdchat

 **Sarah Slattery** @MissSlatterySTJ · 17h ...  
Yeah, the lessons are for different age ranges but they can be used across the whole school. It's great to go back to one of the lessons a year or 2 later too. Brings about great collaboration, discussion and variety in representation.  
[#mathscpdchat](#)

 **Lisa** 🌱 @Elsie2110 · 17h ...  
Replying to @martynyeouk @MissSlatterySTJ and 5 others  
That's a new one on me! This is why I love social media :) [#MathsCPDChat](#)

these from [Jenni](#), [Martyn Yeo](#) and [Heather Scott](#):

 **Jenni** @tousledmop · 17h ...  
Replying to @martynyeouk and @mathscpdchat  
NCETM materials for fractions (KS2) were brilliant this term, so precise & on point.

 **Martyn (He/Him)** @martynyeouk · 17h ...  
The spine materials? [#mathscpdchat](#)

 **Jenni** @tousledmop · 17h ...  
Yes- I will look at these every term.

 **Heather Scott** @MathsladyScott · 19h ...  
Replying to @martynyeouk  
Have you got a link to those materials please? [#mathscpdchat](#)

 **Martyn (He/Him)** @martynyeouk · 19h ...  
Replying to @MathsladyScott  
[ncetm.org.uk/teaching-for-m..](https://ncetm.org.uk/teaching-for-m..)

Should be the ones [#mathscpdchat](#)

	<p><b>Fractions</b> Spine 3 of the Primary Mastery Professional Development Materials <a href="https://ncetm.org.uk">ncetm.org.uk</a></p>
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and these from [Jenni](#), and [Martyn Yeo](#):

 **Jenni** @tousledmop · 17h ...  
Replying to @martynyeouk and @mathscpdchat  
.. I also loved some of the EEF research & podcasts about using resources



**Martyn (He/Him)** @martynyeouk · 17h

...

Replying to @tousledmop and @mathscpdchat

Always great things coming out from @EducEndowFoundn who show their research and give recommendations

#mathscpdchat



**Jenni** @tousledmop · 17h

...

This one: EEF podcast: 'Setting pupils up for success in maths'

LISTEN:[eef.li/tTRqGK](https://eef.li/tTRqGK)

In this instalment, host Alex Quigley discusses best practice in maths teaching, from establishing strong foundations in the early years, use of resources & chns misconceptions:



New EEF podcast: 'Setting pupils up for success in maths' | News

Today, the EEF has published the third episode of our podcast, 'Evidence into Action', focusing on 'Setting pupils up for success in maths'. In this

[educationendowmentfoundation.org.uk](https://educationendowmentfoundation.org.uk)



**Martyn (He/Him)** @martynyeouk · 16h

...

Why was this one effective for you? #mathscpdchat



**Jenni** @tousledmop · Jun 29

...

Replying to @martynyeouk @mathscpdchat and @EducEndowFoundn

Just the reinforcement that teachers need to be aware & have pre planned for misconceptions, so we can pre-empt & help them tackle!



**Jenni** @tousledmop · 19h

...

Replying to @martynyeouk @mathscpdchat and @EducEndowFoundn

Also the NCETM glossary. I'd love the NCETM to produce a child-friendly language definition too though!

(to read the discussion-sequence generated by any tweet look at the 'replies' to that tweet)

Other areas where discussion focused were:

at the start of the chat the host tweeted this poll:



then a teacher replied to an earlier tweet from the host which he had posted on the day before the chat as a reminder of tonight's topic:



- this generated a short discussion about [#MathsChatLive](#), which is a live interactive video chat between maths teachers during which 'anyone can ask questions on twitter when live and get involved';

the host's first question was the main question of the chat: 'what material is proving most helpful in your primary maths teaching?' ... although most of the responses to this question are shown in the sequence of screenshots-of-tweets presented above, some other experiences were mentioned:

- when the host inquired into how a teacher's knowledge acquired through her reading has impacted on the mathematics learning of pupils in the five schools in which she works, the teacher replied that 'the main way in school has been **developing language use: upskilling teachers, ensuring full sentence answers** ... both have had a positive impact particularly on confidence and enthusiasm for maths';
- a teacher commented that she had been **encouraged 'to pick up educational research to improve our teaching'** by engaging with material on [Craig Barton's](#) website;

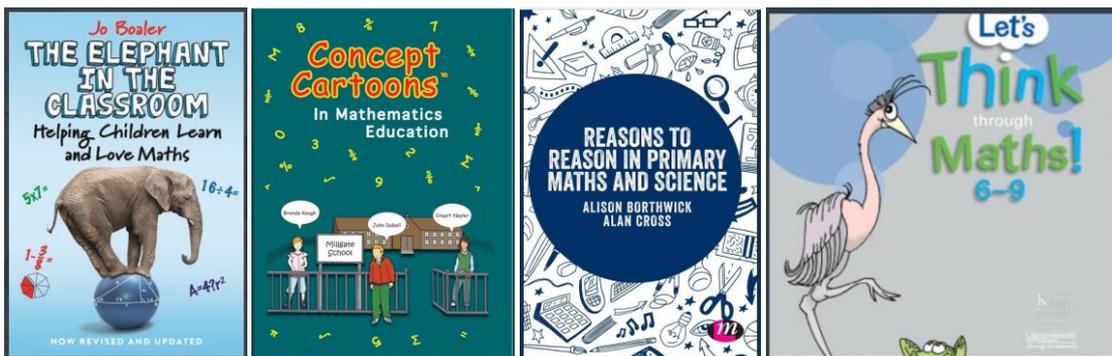
**the host asked whether a particular *Best Books for Schools* website (link provided above) might be useful as a starting point for some reading, and what other starting points teachers would recommend:**

- teachers mentioned their own and other people's **blogs** (links provided above);
- some **podcasts 'with a maths focus'** were mentioned ... this prompted a short discussion about whether, on the whole, teachers prefer to read about, or listen to, material in-order-to/that-is-intended-to support their maths teaching ... a teacher pointed out that taking part in a podcast discussion in itself may contribute to a teacher's professional development ... it was also noted that 'this year has been exceptionally exhausting and while I prefer to read and annotate than listen, it's been a struggle';

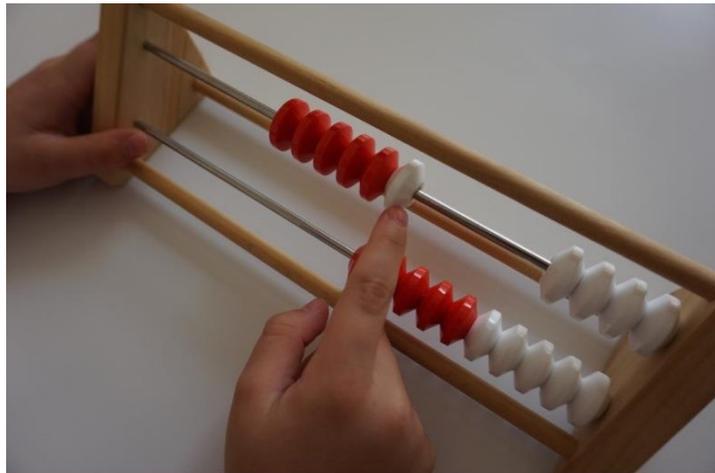
**a teacher tweeted images of the front covers of four of her favourite books about maths teaching and learning (links provided above):**



**Sarah Slattery** @MissSlatterySTJ · 20h  
Some of my favourites. [#mathscpdchat](#)



**the host showed an image from a video about using a rekenrek (link provided above) ...**



... and asked teachers what other video guidance they would recommend:

- teachers agreed that the use of **rekenreks** by children helps to develop their 'number sense' ... for example 'they show most clearly things like double 6 is double 5 plus 2, the '5 and a bit' concept of number' ... discussion focussed on videos by [Amy How](#);
- some other videos that have inspired some teachers were mentioned (links provided above) ... such as these:



**Atul Rana** @atulrana · 21h

...

Replying to @martynyeouk @ThinkingMaths and 2 others

This video podcast with @berniewestacott is absolute gold. From using various manipulatives to understanding different structures. It is unbelievably good CPD for free and I've learnt loads from it!

[mrbartonmaths.com/blog/bernie-we...](http://mrbartonmaths.com/blog/bernie-we...)

#MathsCPDchat



**Bernie Westacott: Teaching maths with visuals and ma...**

A podcast interview with Bernie Westacott looking at teaching the beginnings of number, negative numbers ...

[mrbartonmaths.com](http://mrbartonmaths.com)

 **Tom Oakley** @ThatMathsMan · Jun 29 ...  
Replying to @martynyeouk and @mrbartonmaths  
I'd highly recommend @Kieran\_M\_Ed Thinking Deeply podcast #mathscpdchat

1      2      7      

 **Atul Rana** @atulrana · Jun 29 ...  
You beat me to it! Thinking Deeply about Primary Mathematics podcast run by the excellent @Kieran\_M\_Ed [thinkingdeeply.info/blank-page-1](http://thinkingdeeply.info/blank-page-1)  
#MathsCPDchat



Podcast | Thinking Deeply about Primary Mathematics  
[thinkingdeeply.info](http://thinkingdeeply.info)

 **Atul Rana** @atulrana · Jun 29 ...  
And a shameless plug to another #MathsChatLive episode where we discussed some ideas from the book by Kieren 'Thinking Deeply about Primary Mathematics'  
#MathsCPDchat

 **Atul Rana** @atulrana · Mar 27

#MathsChatLive with @MissSDoherty @lwilliamsjones @Kieran\_M\_Ed discussing maths teaching at primary/elementary. Followed by live music from Mr L W-J. Get involved! Ask us any (maths teaching) question and please RT :- ) [pscp.tv/w/cy4jUjFyYWpa..](http://pscp.tv/w/cy4jUjFyYWpa..)

**the host's final question was about materials that teachers have not found to be useful in supporting primary maths teaching and learning:**

- this question generated only a very few replies, including this one;

 **Mark Williams** @markuk73 · Jun 29 ...  
Replying to @martynyeouk @mathscpdchat and @NCETM  
I find online websites like Tw\*nl or TES very variable. I'd rather have a good scheme with adaptable resources or a workbook. #mathscpdchat