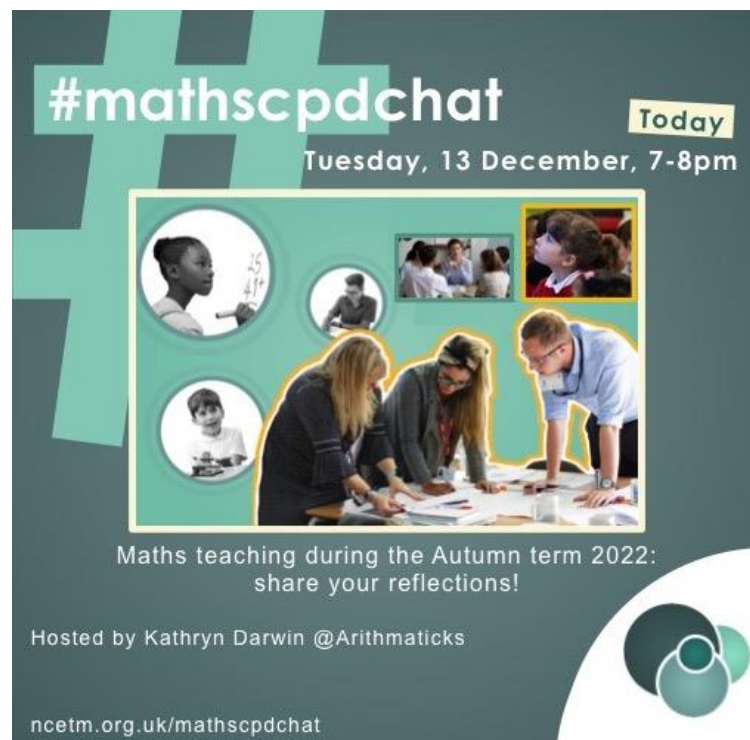


#mathscpdchat 13 December 2022

Maths teaching during the autumn term 2022: share your reflections!

Hosted by [Kathryn Darwin](#)

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



The graphic features a large teal hashtag symbol on the left. The text '#mathscpdchat' is prominently displayed in white. To the right, it says 'Today' in a yellow box, followed by 'Tuesday, 13 December, 7-8pm'. Below this is a collage of images: a woman pointing at a whiteboard with numbers, a man writing, a group of people, and a man looking at a screen. A larger image shows three people leaning over a table, looking at documents. At the bottom, the text reads 'Maths teaching during the Autumn term 2022: share your reflections!' and 'Hosted by Kathryn Darwin @Arithmatics'. The website 'ncetm.org.uk/mathscpdchat' is at the bottom left, and the NCETM logo is at the bottom right.

A full illustrated summary of the discussions generated by the host's questions follows after brief descriptions of links shared during this #mathsCPDchat:

[Desmos Classroom](#) which is a collection of free digital lessons which you can browse and/or use. You can also create your own tasks and activities. It was shared by [Karen Hancock](#)

[Unit 3 Check In](#) which is a Desmos activity (sequence of tasks) created by [Karen Hancock](#). It was shared by [Karen Hancock](#)

[Make It Stick](#) which is an episode of the Leading Learning podcast in which Peter C Brown, co-author of *Make It Stick: The Science of Successful Learning* is interviewed. It was shared by [Karen Hancock](#)

[Linear Simultaneous Equations](#) which is a blog that is one of [Jo Morgan](#)'s resources. It was shared by [Jenny Hill-Parker](#)

[Random Sampling Methods](#) which is a 'two-day lesson'. In the first lesson students carry out tasks, and in the second lesson they reflect on, and discuss, what they did, found and learned in the first lesson. It was shared by [James Maloney](#)

[Distributivity](#) which is free-to-download resource material created by [Nathan Day](#). It is an ordered sequence of tasks that focus on the distributive law applied to numbers. Algebraic notation is introduced at the end. It was shared by [Nathan Day](#)

The host followed her initial greeting...



Kathryn MCCT @Arithmaticks · 17h

Gooooood evening everyone! Welcome to tonight's [#MathsCPDChat](#) where as always, the only rule is... "there are no rules!"... I'm lying, there is one...



... with her first main question ...



Kathryn MCCT @Arithmaticks · 17h

Tonight we want to get a little reflective and look back over the past term. So starting positive... What is the BEST thing that has happened this term? [#MathsCPDChat](#)



... which prompted [Karen Hancock](#) to describe how some resources supported her teaching and enhanced her students' learning experiences this term ...



Karen @karenhancock · 17h

Replying to @Arithmaticks

One-to-one devices for Year 9 (mainly with my GCSE Stats hat on) , but it's been useful for Maths too. [#MathsCPDChat](#)



Kathryn MCCT @Arithmaticks · 17h

Replying to @karenhancock

Tell us more! [#MathsCPDChat](#)








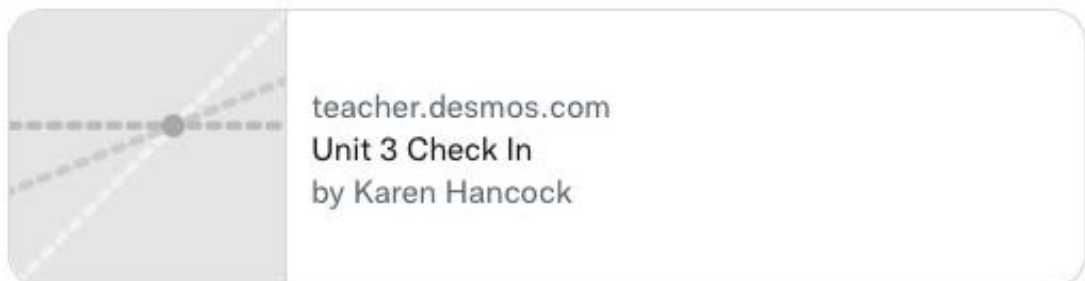
Karen @karenhancock · 17h

Replying to @Arithmaticks

Last week we managed to do a simulation of each of them flipping a coin 20 times, with no real coins, and using Desmos classroom we could aggregate teh data really quickly.

And they can generate lots of random numbers on Excel quickly.

-  **Kathryn MCCT** @Arithmaticks · 17h ...
Replying to @karenshancock
This sounds really cool! No clattering! #MathsCPDChat
-  **Karen** @karenshancock · 17h ...
Replying to @Arithmaticks
Mathigon coin and it tabulates the flips too. :-)
-  **Karen** @karenshancock · 17h ...
Replying to @Arithmaticks
And then in Maths: Desmos classroom has been very useful for pre-assessment of topics. Nice and quick overview of where you need to fill gaps. #MathsCPDChat
-  **Mary Pardoe** @PardoeMary · 17h ...
Replying to @karenshancock and @Arithmaticks
Desmos classroom: teacher.desmos.com
#mathscpdchat
-  **Karen** @karenshancock · 17h ...
Replying to @PardoeMary and @Arithmaticks
Here's an example of one of our check ins.
teacher.desmos.com/activitybuilde...
#MathsCPDChat



(link provided above)

... and provided an opportunity for [Jonathan Hall](#) to make a (not very clear to general observers) reference to the host's successful work this term, and another opportunity for the host to remind all contributors about including the hashtag in their tweets to the chat:

-  **Jonathan Hall** @StudyMaths · 18h ...
Replying to @Arithmaticks
We've had an awesome new lead practitioner join us.



Kathryn MCCT @Arithmaticks · 18h

...

Replying to @StudyMaths

This is a lovely compliment Jonathan... but... HASHTAG!!!!!!!!!!!!!!!!!!!!



Kathryn MCCT @Arithmaticks · 18h

...

Replying to @StudyMaths

Seriously though, thanks



The host's second main question ...



Kathryn MCCT @Arithmaticks · 19h

...

What lesson went particularly well for you this term? Why?

[#MathsCPDChat](#)

... gave opportunities for five teachers to recall, and share notes about, some successful maths lessons. [Jenny Hill-Parker](#) was inspired by one of [Jo Morgan](#)'s resources ...



Jenny Hill-Parker @JennyHillParker · 19h

...

Replying to @Arithmaticks

I did a Geogebra lesson on simultaneous equations from @mathsjem's blog - there were some nice wow moments [#mathscpdchat](#)



Kathryn MCCT @Arithmaticks · 19h

...

Replying to @JennyHillParker and @mathsjem

Could you share a link? Why do you think it worked so well?

[#MathsCPDChat](#)



Jenny Hill-Parker @JennyHillParker · 19h

...

Replying to @Arithmaticks and @mathsjem

The worksheet was a great practical demo of why algebraic and graphical solutions align [#mathscpdchat](#)

resourceaholic.com/2014/05/linear...

(link provided above)

... [Simon Ball](#) shared reflections on his mechanics lessons ...



Simon Ball @ballyzero · 19h

...

Replying to @Arithmaticks

Not a lesson in particular - sorry, breaking it already! - but I've been very happy with the mechanics lessons I've taught recently. I feel I've got everything across well so far! #mathscpdchat



Kathryn MCCT @Arithmaticks · 19h

...

Replying to @ballyzero

That's really good - a topic/theme works too! What do you think has made your explanations so good? #MathsCPDChat



Simon Ball @ballyzero · 19h

...

Replying to @Arithmaticks

I've gotten more confident with the material. We use the same note booklets every year, so I've had the chance to refine my explanations over time. Double bonus! #mathscpdchat



Kathryn MCCT @Arithmaticks · 19h

...

Replying to @ballyzero

Woo hooo - cheers to well practiced explanations refined over time! #MathsCPDChat

... [Karen Hancock](#) showed how she used her own resources in some of her best lessons this term ...



Karen @karenhancock · 19h

...

Replying to @Arithmaticks

Probably this one: (I really should get it up on the website).

I love how they take a while to decide that it is worth looking for a pattern - usually somewhere around 48.

#MathsCPDChat

TASK

Primes (3/3)

Date:

Find the prime factor decomposition of the following numbers, and identify how many factors they have.

You DO NOT have to list all the factors if you can explain how you answered the question without doing so.

8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
30		
32		
48		
64		
120		
150		
1000		
4000		
159000		



Kathryn MCCT @Arithmatics · 19h

Replying to [@karensancock](#)

That is loooovely... Can you explain more about why you picked those numbers? [#MathsCPDChat](#)

 **Kathryn MCCT** @Arithmaticks · 19h ...
Replying to @JamesWMaloney

This is a really nice example of 'real life maths' and bringing culturally relevant content to the maths classroom without gimmicks
[#MathsCPDChat](#)

 **Mary Pardoe** @PardoeMary · 19h ...
Replying to @Arithmaticks and @JamesWMaloney

Yes ... lots to learn from teachers who are working hard on teaching/learning prompted/generated by working with/on Core Maths courses! [#mathscpdchat](#)

 **James Maloney** @JamesWMaloney · 19h ...
Replying to @Arithmaticks

Yeah. We went with their examples. It's the first time students have really experienced inflation. Normally it's too slow to really notice or they do something like shrinkflation. [#mathscpdchat](#)

 **Kathryn MCCT** @Arithmaticks · 19h ...
Replying to @JamesWMaloney

How did you approach it? [#MathsCPDChat](#)

 **James Maloney** @JamesWMaloney · 19h ...
Replying to @Arithmaticks

Opened with McDs cheeseburgers going up by 20p to £1.19 for the first time in 14 years. Lots of discussion. CPI/RPI. Real terms pay cuts was the only sticking point really. Index prices. [#mathscpdchat](#)

... and this lesson of [Mr Bufton](#)'s that went particularly well may have given other teachers some ideas!

 **Mr AVB** @MrBufton · 17h ...
Replying to @Arithmaticks

I did a sequences lesson with a LA group and we went outside and created sequences using items we could find.

There were also the following two replies from [Joanne Green](#) to the host's second question (both 'replies' were given as quote-retweets of the host's question):

 **Joanne Green** @MsJoanneGreen · 20h ...
[#mathscpdchat](#) @Arithmaticks

Due to me doing 30-40 hours per week self-learning, what's surprised me is the speed that I can draw experiments - and almost all technical drawings, including labels. I'm no artist, but my speed shocks other teachers - their mouths gape 🤩



Joanne Green @MsJoanneGreen · 21h

...

[#mathscpdchat](#) @Arithmaticks What else has surprised me is the number of times that I have suggested pupils attend specialist schools for good reasons. Yet, it's a shame that I cannot suggest pupils who are ahead attend specialist learning centres too - to advance them further.



Kathryn MCCT @Arithmaticks · 21h

What lesson went particularly well for you this term? Why?
[#MathsCPDChat](#)

Kathryn's third main question ...



Kathryn MCCT @Arithmaticks · 20h

...

Let's take a turn towards the more 'negative' side...

What lesson didn't go as well this term?

What did you learn from it?

(Can you tell I have worked a lot with ITT/ECTs this term!? 😊)

[#MathsCPDChat](#)

... generated this conversation ...



Karen @karensancock · 20h

...

Replying to @Arithmaticks

My Year 8 and Angles in Polygons: too many things going on.

I've learnt that I need to adapt the booklets I wrote for a similar ability class last year a lot for this year's class.

I've been wondering if I didn't have the booklet would I have done things the same... [#MathsCPDChat](#)



Kathryn MCCT @Arithmaticks · 20h

...

Replying to @karensancock

Interesting! This has always been my worry with booklets - less flex! How did you fix it? What do you think you can do next time to avoid it happening again? [#MathsCPDChat](#)



Karen @karensancock · 20h

...

Replying to @Arithmaticks

I spent a lot of time last year picking what I thought were good tasks. But I think the class this year need more scaffolding - so I need more examples. We use MWBs a lot so that helps. [#MathsCPDChat](#)



Karen @karensancock · 20h ...

Replying to @karensancock and @Arithmaticks

I've just started doing lots of MWB stuff separate from the booklet to recap and reinforce. #MathsCPDChat



Kathryn MCCT @Arithmaticks · 20h ...

Replying to @karensancock

I think this would be my go-to aswell. It's why I like OneNote - I can infinitely scroll to the side and make more Qs up! #MathsCPDChat



Nathan Day @nathanday314 · 20h ...

Replying to @Arithmaticks and @karensancock

My experience with booklets is often the opposite!

Everything is there ready, so I can always move on early or skip things if appropriate, or change up the order of stuff

If a class needs more practice on something, I can print an extra page or do some stuff on MWBs

#MathsCPDChat



Kathryn MCCT @Arithmaticks · 20h ...

Replying to @nathanday314 and @karensancock

I plan my lessons like this, I just feel so uneasy about comitting it to a booklet though! I am not sure why! #MathsCPDChat



Nathan Day @nathanday314 · 20h ...

Replying to @Arithmaticks

Give it a go!



Kathryn MCCT @Arithmaticks · 20h ...

Replying to @nathanday314

I mean, I am lying a bit. I used to print booklets of my slides for Year 11 quite a lot to be fair. But I do it less at my new school!



Kathryn MCCT @Arithmaticks · 20h ...

Replying to @nathanday314

I already spend so much time planning, I just can't face reformatting everything hah!

... and this ...



Nathan Day @nathanday314 · 20h

...

Replying to @Arithmatics

My carefully planned sequence of lessons on expanding and factorising ended up being pretty unsuccessful, despite my having high hopes for it.

I've got quite a few thoughts about why it didn't work, which I hope to write up over the break!

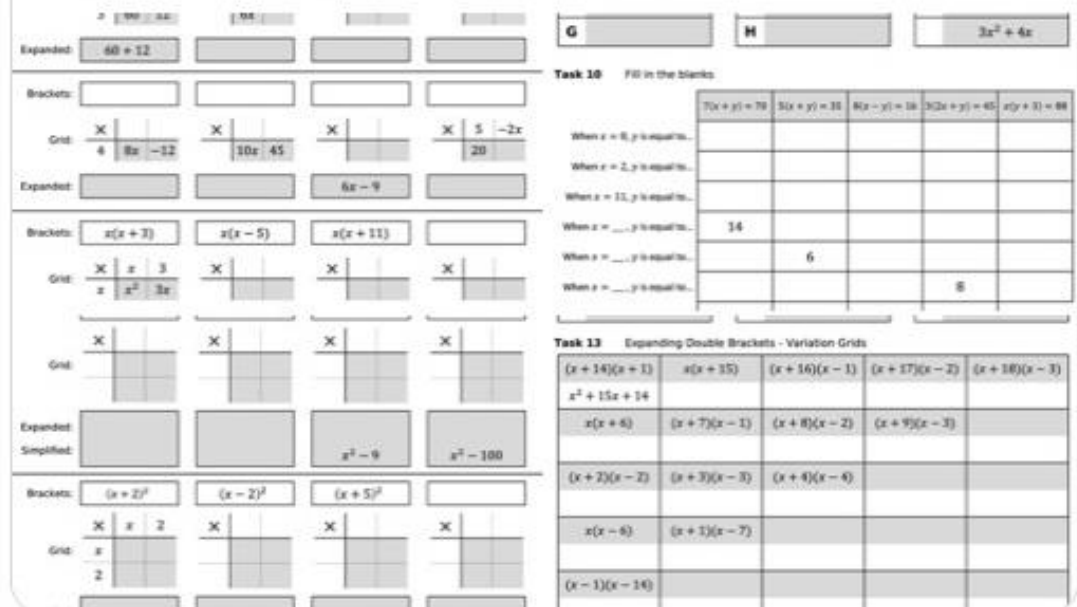
twitter.com/nathanday314/s...

#MathsCPDChat

Nathan Day @nathanday314 · Oct 29
Distributivity: Part 2 - The Algebra Bit

Full booklet, with 8 starters, 13 tasks and full solutions available at the links below!

PDF: drive.google.com/file/d/1R610DH...
 Editable PPT: docs.google.com/presentation/d...



The screenshot shows a worksheet with several sections:

- Expanded:** $40 + 12$, $10x + 45$, $6x - 9$
- Brackets:** $x(x+3)$, $x(x-5)$, $x(x+11)$
- Grids:** A 2x2 grid for $x(x+3)$ with values x , 3 , x^2 , $3x$.
- Expanded:** $x^2 - 9$, $x^2 - 100$
- Simplified:** $(x+2)^2$, $(x-2)^2$, $(x+5)^2$
- Task 10:** Fill in the blanks. A table with columns for $7(x+y)=78$, $3(x+y)=38$, $8(x-y)=38$, $3(2x+y)=45$, and $x(y+3)=88$. Rows ask for values of x and y under different conditions.
- Task 13:** Expanding Double Brackets - Variation Grids. A table with columns for $(x+14)(x+3)$, $x(x+35)$, $(x+14)(x-1)$, $(x+17)(x-2)$, and $(x+18)(x-3)$. Rows show the expanded form and the original double brackets.



Kathryn MCCT @Arithmatics · 20h

...

Replying to @nathanday314

Always infuriating when you think you've nailed it and it just doesn't go like you expected it to... Look forward to your reflection on it! Can we get a #MathsCPDChat sneak-peek?



Nathan Day @nathanday314 · 20h

...

Replying to @Arithmaticks

Introducing students to a model isn't like kicking a football, it's like sliding a curling stone.

I should have gone with the stone for as long as possible, and kept brushing the ice in front of the stone to make sure it didn't go off course!

... and this short conversation:

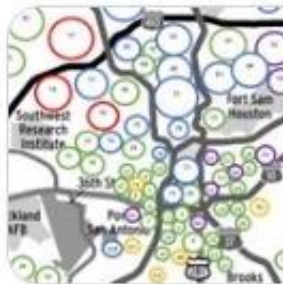


James Maloney @JamesWMaloney · 20h

...

Replying to @Arithmaticks

Sampling. Still not happy with the balance I have. Use this skewthescript.org/4-2 and the students engage and it has improve understanding from how I used to deliver it but something's still not quite right. #mathscpdchat



skewthescript.org

Lesson 4.2 — Skew The Script

AP Statistics lesson 4.2. Covers random sampling methods through an activity that explores income ...



Kathryn MCCT @Arithmaticks · 20h

...

Replying to @JamesWMaloney

Oooh I haven't seen this before - can you tell us a bit more about it?

#MathsCPDChat



James Maloney @JamesWMaloney · 20h

...

Replying to @JamesWMaloney and @Arithmaticks

I use it in Core Maths. There's a Desmos with it. Really good to illustrate the different methods. Does all the processing for you so you can concentrate on the understanding. Works pretty well on mobiles too for desmos.

#mathscpdchat

The host's fourth main question ...



Kathryn MCCT @Arithmaticks · 21h

...

Did anything surprise you in your teaching this term?

A misconception you haven't seen before?

A student struggling with something?

A student totally 'getting it' and blowing you away?

#MathsCPDChat

... prompted these replies about KS5 teaching ...



Margaret Inder @KHSMathematics · 12h ...

Replying to @Arithmaticks

All of the above, linear algebra had a lot of aha moments as connections between graphs, equations and contexts became apparent



Simon Ball @ballyzero · 20h ...

Replying to @Arithmaticks

I'm surprised by how well the Y12s are behaving in class, compared to the current Y13s. Hoping none of them read this! 😊 #mathscpdchat



Tayyub Majeed @tm_maths · 20h ...

Replying to @ballyzero and @Arithmaticks

They were nice! Just had to try harder to explain A Level maths stuff to them.

... and this about less advanced students:



Joanne Green @MsJoanneGreen · 20h ...

#mathscpdchat @Arithmaticks I think a big surprise for me is the learning behaviour gap, which is hugely obvious now as it's both extremes. The pupils behind on the whole don't do any self-learn at home. In contrast, the ones ahead plan self-learning effortlessly



Kathryn MCCT @Arithmaticks · 20h ...

Replying to @MsJoanneGreen

Do you think there is anything we can do to help to close that gap?
#MathsCPDChat

There was no reply to Kathryn's question above.

This quote-retweet of the host's fourth question was also posted:



Joanne Green @MsJoanneGreen · 21h ...

@Arithmaticks #mathscpdchat More children seem to understand factors or can grasp it more easily.

I travel to lots of schools due to my job. I find it surprising that pupils don't realise there are similarities and differences with schools. Their school remains their world.



Kathryn MCCT @Arithmaticks · 21h

Did anything surprise you in your teaching this term?
A misconception you haven't seen before?
A student struggling with something?
A student totally 'getting it' and blowing you away?
#MathsCPDChat

The host's fifth main question ...



Kathryn MCCT @Arithmaticks · 21h ...
What CPD have you engaged with this term?
How has it changed your practice?
[#MathsCPDChat](#)

... received this reply ...



Nathan Day @nathanday314 · 20h ...
Replying to @Arithmaticks
Reading and re-reading @adamboxer1's blog posts are always a really helpful reminder to keep trying to raise expectations and maintain botheredness about the vast range of little things that make big differences.

[#MathsCPDChat](#)

... and this:



Karen @karensancock · 21h ...
Replying to @Arithmaticks
Ha! I've been trying to read Teaching Walkthrus... [#MathsCPDChat](#)



Kathryn MCCT @Arithmaticks · 21h ...
Replying to @karensancock
Trying? haha [#MathsCPDChat](#)

There was another quote retweet from [Joanne Green](#):



Joanne Green @MsJoanneGreen · 21h ...
[#mathscpdchat](#) @Arithmaticks I have increased my strength and skill set by wall climbing [awesomewalls.co.uk](#) and this has given me something else to speak with the pupils about, they approve!
[completemaths.com/home/community...](#) and will book this too - my > understanding



Kathryn MCCT @Arithmaticks · 21h
What CPD have you engaged with this term?
How has it changed your practice?
[#MathsCPDChat](#)

Replies to the following sixth question from the host ...



Kathryn MCCT @Arithmaticks · 21h

I feel like now might be a nice time to shout out your colleagues (online or real-life!) that have supported you through this term...

[#MathsCPDChat](#)



SHOUT OUT TO THE HOMIES

... included four from Kathryn herself (two of which prompted replies) ...



Kathryn MCCT @Arithmaticks · 21h

Replying to @Arithmaticks

For me:

[@LeedsTeacher](#) for a solid first term at LCA

[@StudyMaths](#) for sharing many many completion tables with me

& the rest of the LCA Maths dept for dealing with me not having a clue about anything for the first few weeks... & eating all the cakes I make so I don't!



Kathryn MCCT @Arithmaticks · 21h

There's loads of you on here who help me all the blooming time. Too many to list.

But big love to [@mrshawthorne7](#) and [@giftedHKO](#) who have become 'Real Life' friends. I love our Friday Drive-Time catch ups 🥰 [#MathsCPDChat](#)



Miss Konstantine @giftedHKO · 19h

Replying to @Arithmaticks and @mrshawthorne7

[#mathscpdchat](#) Friday night drive home chat is awesome. Very lucky to have you both.



Kathryn MCCT @Arithmaticks · 21h

And a massive massive thank you to [@NCETM](#) [@YHMathsHub](#)

[@Exchangethub](#) and [@LTUPGCE](#) for all the oppotinitues you have given me to work with other teachers, including ECTs and ITTs. I am super passionate about helping teachers develop, and I love that you let me!

[#MathsCPDChat](#)



Yorkshire and the Humber Maths Hub @YHMathsHub · 8h



Kathryn MCCT @Arithmaticks · 21h

OH AND... You lovely lot for contributing to [#MathsCPDChat](#) every week.

You make this such a lovely hour of the week!

... and these replies to Kathryn's sixth question (from [James Maloney](#)) also prompted return-responses:

-  **James Maloney** @JamesWMaloney · 21h ...
Replying to @Arithmaticks
Too many to mention! But I am so grateful to them all! #mathscpdchat
-  **Kathryn MCCT** @Arithmaticks · 21h ...
Replying to @JamesWMaloney
Can't tempt you into a list.... 😞
-  **James Maloney** @JamesWMaloney · 21h ...
Replying to @Arithmaticks
Well, a non-exhaustive list would include: my dept colleagues (not on Twitter) @reflectivemaths @Littlemissmath5 @CoreMathsTom @CoreMathsCat @mdawesmdawes #mathscpdchat
-  **Jude Mortimer** @Littlemissmath5 · 20h ...
Replying to @JamesWMaloney @Arithmaticks and 4 others
You would most definitely be on mine too! 😊
-  **Cat van Saarloos** @CoreMathsCat · 9h ...
Replying to @JamesWMaloney @Arithmaticks and 4 others
Right back at you! 🌟
-  **Mark Dawes** @mdawesmdawes · 18h ...
Replying to @JamesWMaloney @Arithmaticks and 4 others
Gosh - that's very lovely! Thank you :-)

Kathryn's seventh and last question ...

-  **Kathryn MCCT** @Arithmaticks · 21h ...
To finish... my usual:
What are you going to keep in your practice next year?
What are you planning to develop?
What are you going to bin?
[#MathsCPDChat](#)

... prompted this reflection ...



Nathan Day @nathanday314 · 21h

...

Replying to @Arithmaticks

January marks a year since I started making booklets. I'm looking forward to adapting/improving my mammoth Y10 HT3 booklet that kicked everything off.

I've learned a heckmeck of a lot since then!

[#MathsCPDChat](#)

... and this conversation ...



Karen @karenshancock · 21h

...

Replying to @Arithmaticks

I need to write some more examples/self explanation prompts. I want to take the time to think about the ones I've been avoiding writing, so work out if I can find some self explanation prompts for them.

[#MathsCPDChat](#)



Kathryn MCCT @Arithmaticks · 21h

...

Replying to @karenshancock

Oooh what ones are you avoiding! [#MathsCPDChat](#)



Karen @karenshancock · 21h

...

Replying to @Arithmaticks

Generally ones where I think I need to talk through the example step by step live - but that shouldn't stop me writing prompts. (except it does because I don't have an example to refer to)



Kathryn MCCT @Arithmaticks · 21h

...

Replying to @karenshancock

Write the example in, write the prompts, then erase it? [#MathsCPDChat](#)



Kathryn MCCT @Arithmaticks · 21h

...

Replying to @karenshancock

Write the example in, write the prompts, then erase it? [#MathsCPDChat](#)



Karen @karenshancock · 21h

...

Replying to @Arithmaticks

I think so - it can also be a time thing. For example today I printed a colleague's booklet for Surface Area, rather than write my own- so no self explanation prompts in that! [#MathsCPDChat](#)

... and this:



Karen @karensancock · 21h

...

Replying to @Arithmaticks

I also want to work more on explaining to students how memory works and why the things we do in lessons help with this. Enjoying listening to Make It Stick at the moment which talks about this.

[#MathsCPDChat](#)



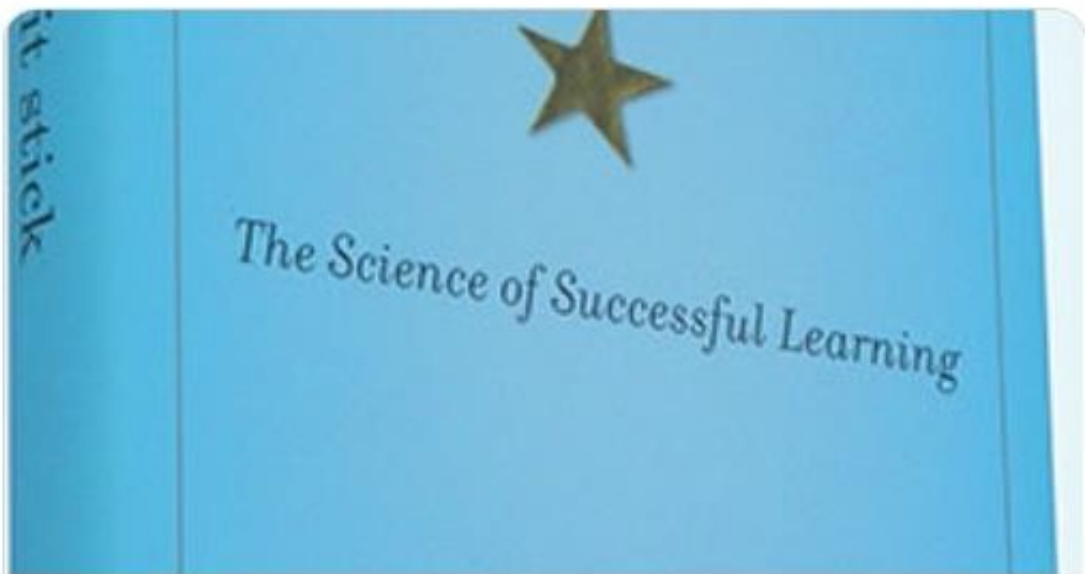
Mary Pardoe @PardoeMary · 21h

...

Replying to @karensancock and @Arithmaticks

This? leadinglearning.com/episode-20-mak...

[#mathscpdchat](#)



leadinglearning.com

Make It Stick with Peter C. Brown

In this episode of the Leading Learning podcast, Celisa interviews Peter C. Brown, co-author of Make It Stick: The Science of ...



Karen @karensancock · 21h

...

Replying to @PardoeMary and @Arithmaticks

That's the one. My failure to read any of my education theory books prompted me to use an Audible Credit to get this one. It has certainly helped with my progress. [#MathsCPDChat](#)

To Kathryn's closing message ...



Kathryn MCCT @Arithmaticks · 21h

...

Thank you so so much for your contributions tonight. I know it has been a long, hard term!

Have a lovely last few days at school, and a well-deserved rest over the Christmas break.

You are all AWESOME 🥰

[#MathsCPDChat](#) will be back in the new year!



... there were these replies:



mathscpdchat @mathscpdchat · 21h

...

Replying to @Arithmaticks

And many thanks to you Kathryn, @Arithmaticks, for hosting [#mathscpdchat](#) tonight! (No need to say 'brilliantly' because you always are.) Thank you also to all contributors! A summary will appear in due course, including all links shared tonight. Happy holidays soon!



James Maloney @JamesWMaloney · 21h

...

Replying to @Arithmaticks

Thanks for hosting @Arithmaticks [#mathscpdchat](#). You too!



Simon Ball @ballyzero · 21h

...

Replying to @Arithmaticks

Thanks for all your hard work tonight!



Karen @karenshancock · 21h

...

Replying to @Arithmaticks

Thank you - great fun, as always.



Joanne Green @MsJoanneGreen · 21h

...

@Arithmaticks [#mathscpdchat](#) Thank you for another great session. See you next year - HAPPY CHRISTMAS 🎄 🧑🏻🎅 🎁 🍪