

#mathscpdchat 18 December 2018

What's gone well for you in maths lessons this term? Which teaching strategies, materials, problems, lessons, ... have worked particularly well with your pupils?

Hosted by [@Arithmaticks](#)

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



Some of the areas where discussion focussed were:

- lessons in which a **pupil who normally struggles, suddenly understands** an idea ... e.g. a lesson in KS1, and a lesson in KS4 when a disengaged student 'who I thought was unreachable suddenly came on board';
- enjoying **devising tasks/questions** ... particularly tasks to help pupils make connections, and to stretch strong pupils ... being proud of questions/tasks devised, and sharing them with other teachers;
- being **stricter with students** ... e.g. 'being very explicit about what I need to see in their books';
- thinking about **how/what pupils record in books** (because I feel I need more 'evidence' of what they know and can do) ... getting ideas from my taking part in a

'greater depth' workshop run by @CentralMathsHub, e.g. pupils using 'whiteboard workbooks';

- **starting to use a visualiser** and 'silent teaching', both of which engaged students in a new/different way ... eg silent examples on the board then passing the pen to students ... teacher can see class while presenting (writing/drawing) on board, so to make sure that they are 'following along' ... students 'massively more focused than when I write on the board (mostly with my back to them)' ... investigating that phenomenon as a department;
- in KS1 **moving from teaching a particular year group** for several continuous years to teaching a different year-group ... enjoying the challenge, and **introducing more concrete apparatus and practical activities**;
- using '**multilink**' cubes to help learners understand factors, prime numbers and composite numbers ... which was both effective and enjoyable;
- **teaching Further Maths for the first time** ... reflecting on ways of explaining to students and involving students ... which will have an impact on my teaching in all years at all levels;
- being proud of **teaching Mechanics for the first time ever**;
- a **Y10 sequence of lessons on surds**, in which the teaching was broken into small 'chunks';
- as a secondary teacher **going into Y6 lessons for a week**, thus 'learning loads';
- **changing the way that I explain things** ... e.g. making first examples easier, not doing distracting things that I used to do, such as 'telling jokes and fidgeting';
- being **more confident and assertive**;
- incorporating **UKMT Olympiad and Maths Challenge questions** into tasks and exercises;
- using '**variation theory**';
- using '**I see reasoning**' resources from @gareth_metcalf.

An interesting 'conversation' of tweets, **about using a visualiser** to enhance teaching and so facilitate learning, followed from this tweet by [Kathryn Darwin](#):



Kathryn @Arithmatics · Dec 18

Have you tried something new in your classroom this term? How did it go? Was it an instant hit, or did it need refining? #mathscpdchat

including these from [Lori Owen](#) and [Kathryn Darwin](#):



Lori Owen @mrsowenmaths · Dec 18

Replying to @Arithmaticks

Started using a visualiser and silent teaching. Both have engaged the students in a different way #mathscpdchat



Kathryn @Arithmaticks · Dec 18

Silent examples have changed things so much for me! The visualiser is something I need to get my hands on... Do you do them at the same time? #mathscpdchat

these from [Lori Owen](#):



Lori Owen @mrsowenmaths · Dec 18

Silent examples on the board then passing the pen to students. Visualiser for loads of stuff, pie charts, graphs, modelling algebra.



Lori Owen @mrsowenmaths · Dec 18

The silent teaching from the board making connections between sequences and straight lines. Worked a treat, the class were quietly, intently looking at the board and every so often would whisper something to their neighbour but never audible to any1 else

these from [Neil Hamilton](#) and [Lori Owen](#):



Neil Hamilton @NHamiltown · Dec 18

Replying to @Arithmaticks @matt_skoss @mrsowenmaths

Going to try silent teaching. Maybe silent videos too. Is visualiser a camera



Lori Owen @mrsowenmaths · Dec 19

It's a camera so you can work at your desk while projecting on the board.



Lori Owen @mrsowenmaths · Dec 19



these from [Lori Owen](#) and [Maths Hannah](#):



Lori Owen @mrsowenmaths · Dec 18

Replying to @PardoeMary @Arithmaticks

Visualiser means they see it with real pens/squares/rulers. I can see the class at the same time and make sure they are following along.

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Maths_Hannah @hannah_maths · Dec 18

Do you not find it hard to focus on both what you are doing and the class?

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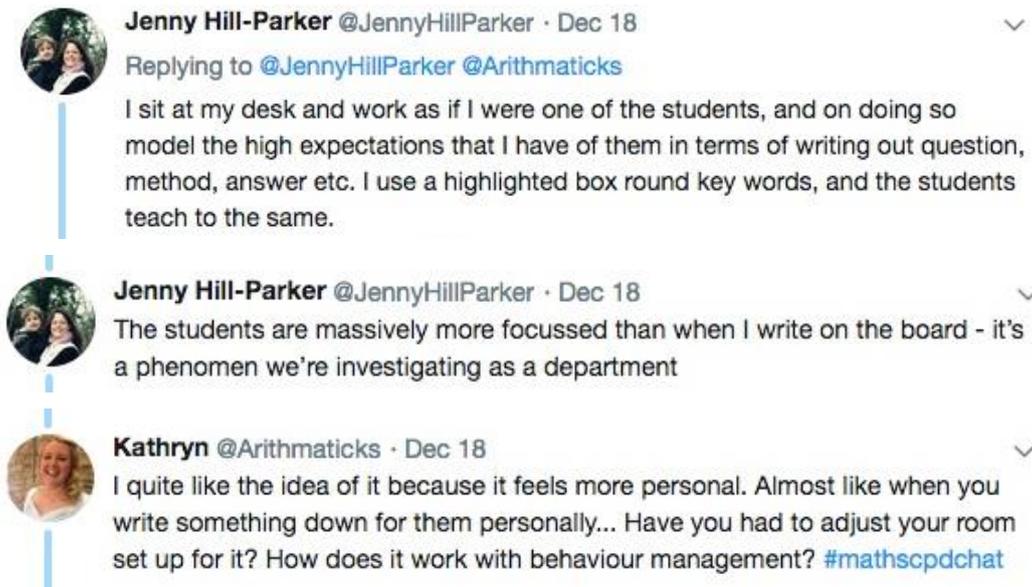
Lori Owen @mrsowenmaths · Dec 18

Sometimes, yes #mathscpdchat

these from [Jenny Hill-Parker](#) and [Kathryn Darwin](#):



these from [Jenny Hill-Parker](#) and [Kathryn Darwin](#):



and this from [Jenny Hill-Parker](#):



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

Among the links shared were:

[Using a Visualiser](#), which is a blog by Mark Warner briefly explaining what a visualiser is, and providing some ideas for using a visualiser in the classroom, shared by [Lori Owen](#)

[The Visualiser Shop](#), which is a shop that sells visualisers, shared by [Lori Owen](#)

[United Kingdom Mathematics Trust](#) which is a page of the UKMT website from which you can obtain UKMT Olympiad and Challenge questions, shared by [Mr Mann](#)

[Dr Frost Maths](#) where Dr Frost describes how he improved the UKMT Olympiad and Challenge results of pupils in his school, and suggests practical steps to take that may help improve results in other schools, shared by [Mr Mann](#)

[I See Reasoning - KS1](#) which is a page of Gareth Metcalfe's website linking to, and describing, his 'I See Reasoning' eBook containing 'thought-provoking' prompts for embedding reasoning in every area of the KS1 maths curriculum', shared by [Martyn Yeo](#)

[Variation Theory](#) which is Craig Barton's 'Variation Theory' website, shared by [Martin Forsyth](#)

[Discussion, conjectures, noticing ...](#) which is a blogpost account by [Siobhan McKenna](#) of an unusual and interesting lesson concerning factors of numbers that she taught in December 2018, shared by [Mary Pardoe](#)