

## #mathscpdchat 29 October 2019

**Core Maths: how do ... and how might ... the courses and associated resources benefit your students?**

Hosted by [Esther Stevens](#)

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

**#mathscpdchat**  
TONIGHT – Tuesday, 29 October, 7-8pm

Core Maths: how do ... and how might ...  
the courses and associated resources  
benefit your students?

Hosted by Esther Stevens @MrsMathematica  
[ncetm.org.uk/mathscpdchat](http://ncetm.org.uk/mathscpdchat)

Some of the areas where discussion focussed were:

- how **every cohort of students following a Core Maths course is different** ... in some years it is easy to engage students as they **see the benefits**, but in other years it's harder ... some students, who may have followed, and not done well by following, a 'rigid' GCSE course, at first find the discussion and 'maths-in-contexts' aspects of Core Maths hard to cope with ... the need to **provide sufficient 'scaffolding'** for such students;

- **how to engage students who have not achieved a GCSE grade above Grade 4, and who therefore don't have 'the fundamental basics securely in place';**
- **strategies to engage students who have been 'forced' onto a Core Maths course** ... for example, using money and food contexts, letting them see that their **experiences on their Core Maths course will be different** to their earlier maths-experiences ... emphasising that Core Maths courses enable them to **learn the maths that many adults say they wish they had learnt at school** (such as the mathematics needed to **cope well with pay, tax**, and other essential aspects of life) ... showing students that they will acquire **statistical skills** that are **needed to do well in other subjects and to evaluate critically media representations of statistics;**
- **differentiating by giving extra support to those who need it, and posing thought-provoking problems about the same material to challenge students who are 'flying-through' the work;**
- that it is **not advisable to try to follow a rigid scheme of work** (which is likely to feel forced) ... that the **course will go better if it 'flows naturally' and includes work on topical issues** such as an impending General Election, Halloween, International Cat Day, and so on ...;
- that the **'topical aspects' of Core Maths courses enable teachers to engage well with their students** ... lessons become **'adult conversations with maths involved as an added benefit'** ... for example teachers and students discussing together implications and possibilities arising from **finding-out that rock-climbing was to be part of the Tokyo Olympic Games**, comparing the structures of the three different rock-climbing events, looking mathematically at scoring-systems, and discussing fairness;
- that **discussing tax and National Insurance has been 'a massive draw' to Core Maths** for many students because they like the idea of knowing how to work-out those things;
- that **students who are studying science subjects** appreciate the fact that Core Maths helps them with those studies ... and they like the way that Core Maths is taught, that 'it feels really different' (to how they were previously taught maths);
- searching for **interesting resources** to use in the **teaching of Core Maths to students who are also taking Business Studies courses;**
- using a **'careers quiz'** (NB: link to 'The Buzz Quiz' below) **as the starting point for mathematical investigation of 'working-life-essentials'** such as net annual starting salaries in different careers, monthly pay and living costs in different places;





- **reviewing the ideas and procedures involved in working with percentages** in preparation for GCSE exams, **but approaching those ideas and procedures in a different way**, focussing on applying them **in contexts that matter to students**;
- **discussing appropriate ranges for estimations of numerical facts** that matter to students, for example when estimating different life-expectancies resulting from living in different places;
- **using Core Maths materials with pupils in other Year-groups or on other courses** ... for example with GCSE re-sit students ... incorporating Tax at a basic level into Year 9/10 teaching;
- that **colleagues who teach other subjects**, and who have attended 'Teaching-Core-Maths' workshops, have become genuinely excited by maths for the first time ... that they **wished they had been taught maths in that way**;
- that **learning from 'Teaching-Core-Maths' courses and workshops** often changes how a person teaches at all ages/levels, particularly how they teach less engaged students;
- **variation in the time-structure/allocation of Core Maths courses** ... that the recommendation is **180 Guided Learning Hours** (180 GLH) ... examples from contributors to the chat included ... 3.5 hours per week over 1 year, 5 hours per 2-weeks over 1 year, 9 hours per 2-weeks over 1 year, 4 hours per 2-weeks over 2 years ... that in Further Education it would be challenging to try to run a Core Maths course over 2 years owing to retention issues ... that running a Core Maths course over 2 years (over Y12 and Y13) in a school may be beneficial because 'students perform better as they mature';
- that teachers attending '**Teaching-Core-Maths' courses** would appreciate a stronger focus on ways of **enabling students to become more-independent learners**;
- that **Core Maths webinars** take place once during each half of a term ... the next one is on 17 December 2019.

In what follows, click on any screenshot-of-a-tweet to go to that actual tweet on Twitter.

This is part of a 'conversation' of tweets about how Core Maths courses benefit students whose main (A level) subjects are NOT maths, and some contextual starting-point-ideas that work for students on Core Maths courses. The conversation was generated by this tweet from [Esther Stevens](#):



and included these from [David Redden](#) and [Esther Stevens](#):

-  **David Redden** @DavidRedden13 · 19h  
Replying to @MrsMathematica  
I was speaking to tutors who have been delivering our [#coremaths](#) and they loved the topical element as they engage with their learners so much better as it becomes like an adult conversation with maths added as a benefit [#mathscpdchat](#)
-  **Esther** @MrsMathematica · 19h  
Brilliant! Any topics in particular that stand out? [#mathscpdchat](#)
-  **David Redden** @DavidRedden13 · Oct 29  
Replying to @MrsMathematica  
They were discussing how rock climbing was going to be in the Tokyo Olympics and how there are 3 different events within it. It then related to how they do the scoring so a climber who finishes 1st, 1st and 20th would finish higher than a climber who finished 4th 3 times
-  **David Redden** @DavidRedden13 · Oct 29  
Replying to @MrsMathematica  
They then discussed the fairness of this before look at the maths behind the scoring [#mathscpdchat](#)

these from [Catherine van Saarloos](#) and [JP \(Formerly JC\)](#):

-  **Catherine van Saarloos** @CoreMathsCat · 19h  
Get them to do a careers quiz: [ucas.com/careers/buzz-q...](https://ucas.com/careers/buzz-q...) then work out what their take home pay would be for the starting salary of that job. Where could they afford to live on that in Liverpool? [#mathscpdchat](#)
- 
- The Buzz quiz  
[ucas.com](https://ucas.com)
-  **JP (Formerly JC)** @last\_centurion · 19h  
I like that! May have to do it later in the year! [#mathscpdchat](#)

and these from [Catherine van Saarloos](#), [Mary Pardoe](#) and [JP \(Formerly JC\)](#):



**Catherine van Saarloos** @CoreMathsCat · 19h

Replying to @MrsMathematica

"I really like this maths. It's helped me a lot with my sciences. Especially the problem solving. I'm not as scared of those questions any more"

"I like the way the teacher teaches the lessons. It feels really different"

#mathscpdchat



**Mary Pardoe** @PardoeMary · 19h

These are useful postcards and posters, from ASMP ... #mathscpdchat  
[amsp.org.uk/students/liter...](http://amsp.org.uk/students/liter...)

### Studying Core Maths develops quantitative skills that will support your other courses

A series of postcards and posters which demonstrating how the skills learned studying Core Maths support the quantitative aspects of studying for other qualifications.

#### Postcards



Sport Science and PE



Psychology



Health and Social Care



Geography and Sociology

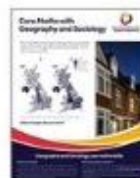


Business and Economics



Biology and Environmental Science

#### Posters



**JP (Formerly JC)** @last\_centurion · Oct 29

Replying to @PardoeMary @CoreMathsCat and @MrsMathematica

Are there posters available now? Can they be obtained from @Advanced\_Maths ??



**Catherine van Saarloos** @CoreMathsCat · Oct 29

Yes just email [admin@amsp.org.uk](mailto:admin@amsp.org.uk) #mathscpdchat



**Catherine van Saarloos** @CoreMathsCat · 19h

You can order copies from [admin@amsp.org.uk](mailto:admin@amsp.org.uk), again also useful for 11-16 students to highlight that you may still be doing maths even if you don't choose maths A level etc. #mathscpdchat



**JP (Formerly JC)** @last\_centurion · Oct 29

That's tomorrow's job then!

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

Among the links shared were:

[Core Maths](#) which is the Core Maths website from the Advanced Maths Support Programme (AMSP). Sections of the website include pages about professional development opportunities, strategies for offering Core Maths (how you can be helped to get Core Maths up and running), resources for teaching and learning Core Maths, specifications for Core Maths courses, and more. It was shared by [Catherine van Saarloos](#)

[Core Maths Winter Conference 2019/20 Events](#) which provides dates and locations of, and links to further information about some Core Maths PD events. It was shared by [Catherine van Saarloos](#)

[Core Maths Conference: Teaching Quantitative Skills at A level](#) which is a free one-day professional development conference which focusses on developing confidence in working on quantitative skills at A level. This day will be valuable to any teacher whose subject includes quantitative analysis, particularly Biology, Geography and Psychology. It was shared by [Catherine van Saarloos](#)

[Visualising the Climate Crisis: A competition for Year 5 to Year 13](#) for which here are resources created by the AMSP designed to raise awareness of the impact of fast fashion on the climate. These resources are likely to interest students on Core Maths course, who will benefit from their work stimulated by them. It was shared by [Catherine van Saarloos](#)

[Core Maths on NRICH](#) which is a collection of tasks that teachers are likely to find useful for teaching various aspects of Core Maths. It was shared by [Catherine van Saarloos](#)

[Studying Core Maths develops quantitative skills that will support your other courses](#) which is a series of postcards and posters which demonstrate how the skills learned studying Core Maths support the quantitative aspects of studying for other qualifications. It was shared by [Mary Pardoe](#)

[Teaching Core Maths](#) which is a padlet compiled by [Catherine van Saarloos](#) providing lots of resources, links to PD opportunities, and Specifications for the delivery of L3 Core Maths. It was shared by [Mary Pardoe](#)

[Things you can do/join/follow](#) which is a long list of ways you can be supported in delivery of L3 Core Maths. It is compiled by [Catherine van Saarloos](#) and was shared by [Mary Pardoe](#)

[Integrating Mathematical Problem Solving Resources](#) which are resources from MEI designed to help teachers of mathematics and other teachers of subjects at A level to teach relevant aspects of mathematics and statistics, showing how they are used in solving real problems. It was shared by [Stella Dudzic](#)

[Core Maths Subject Support](#) which is a substantial collection of teaching-and-learning-units from the University of Plymouth that are designed specifically to be used with students on Core Maths courses. It was shared by [Mars@MarsMaths#FE](#)

[The Buzz quiz](#) which is a quiz that students can do to see careers that they might like to investigate. It makes an interesting starting-point for work in Core Maths. It was shared by [Catherine van Saarloos](#)

[Standards Unit Improving Learning in Mathematics: challenges and strategies](#) which is a 'classic' document providing essential support for the teaching of mathematics effectively, by Malcolm Swan. It was shared by [Jo Denton](#)

[Cre8ate Maths: Mathematical, Motivational & Memorable](#) which is a collection of resources, all available for free download, that are likely to be useful in teaching Core Maths. It was shared by [Catherine van Saarloos](#)

[Bowland Maths](#) which are imaginative resources for rich problem solving that are likely to be useful for Core Maths teaching. It was shared by [Catherine van Saarloos](#)

[The Language of Functions and Graphs](#) which is lovely material that is likely to greatly interest and motivate students who are studying Core Maths. It was shared by [Mary Pardoe](#)

[Maths Made Memorable](#) which is large collection of videos and related questions from [Mars@MarsMaths#FE](#), each video being linked to an 'item' of 'mathematical content'. They are likely to be helpful for teaching Core Maths. It was shared by [David Redden](#)

[Is That a Big Number?](#) which is a lovely site providing all sorts of ideas to stimulate Core Maths explorations. They are likely to be helpful for teaching Core Maths. It was shared by [Yvonne Scott](#)

[Hans Rosling Videos](#) is large collection of videos that can stimulate mathematical explorations, and are likely to be helpful for teaching Core Maths. It was shared by [Red Maths](#)

[Quibans: Questions inspired by a news story](#) are items that can be used to provoke mathematical questions, and are likely to be very useful for Core Maths teaching and learning. It was shared by [JP \(Formerly JC\)](#)