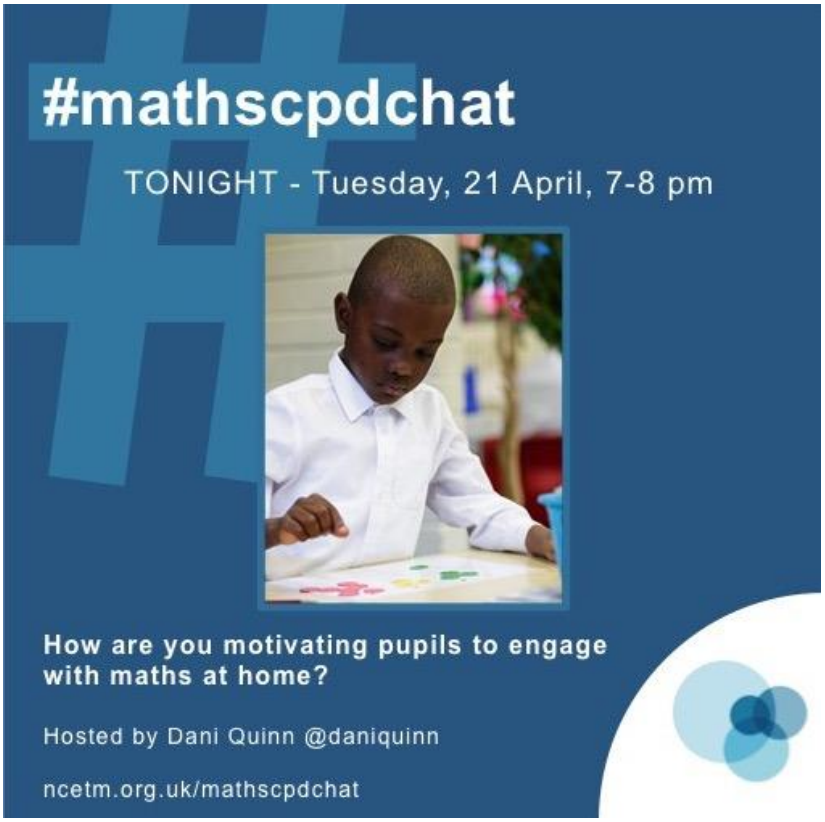
#mathscpdchat 21 April 2020

How are you motivating pupils to engage with maths at home?
Hosted by Dani Quinn:

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:

changes made, since before Easter, by teachers in what they are doing to provide material for, and give support to pupils who are supposed to be learning and doing maths at home:

- whether or not it is advisable to **praise or reward pupils 'publicly'** for work they have done;

- **overcoming technical difficulties** in communicating with pupils and parents … for example, at first there had been difficulties caused by too many parents of primary-age pupils trying to watch the same video at the same time … that some secondary teachers have 'shyed away' from live lessons for similar reasons;
- that, having had time to explore possibilities, teachers now have a **wider range of resources** to draw on … that teachers are now taking advantage of free resources that have become available, and that are new to them … there is some concern that pupils and parents might become confused if they are offered too many options in materials and resources from which they can choose;
- that some pupils are not doing any maths, while others 'can't get enough to do' … teachers are becoming more and more concerned about the **widening of attainment gaps** between pupils;
- that many teachers are **not attempting to teach 'anything new'** … focussing only on revision and retention of what pupils were taught when they were in school
- more teachers are now incorporating **puzzles, games (such as 'Shogi'), 'openmiddle' problems, and other less usual tasks** into familiar-looking material provided for pupils … making clear to pupils that such tasks are optional … setting up game tournaments using Google Meet (links provided below);
- taking care that pupils are not **overwhelmed by, or unable to cope with, maths work** … strategies for identifying and supporting any such pupils … whether setting work for every-other day, rather than for every day, might result in a higher 'uptake' by pupils … offering pupils a mixture of short tasks and longer projects that families may more easily be able to fit into their routines;
- whether or not to set 'assessments' on content that is worked-on at home … whether this is likely to motivate pupils or to cause them unnecessary stress … endeavouring to make the doing of any **assessment tasks** positive experiences for pupils;
- **projects for Year 12 Core Maths students** … for example, investigating why the price of oils is currently as it is … thus embedding the doing-of-mathematics in 'current affairs' contexts;
- whether providing a **'hard-copy workbook'** is preferable to presenting everything 'on a screen' … that without 'using a screen' it is hard to provide feedback to pupils;
- that it is still **early days for teachers in the home-schooling of pupils** … on the day of the discussion it was 'Day 12';
- that some teachers are enjoying the extra time that they now have to support their day-to-day teaching with **wider reading and 'paperwork'**;

games that teachers recommend for pupils to play at home or with other pupils and their teacher online:

- **links to all the particular games mentioned** are provided below;
- some teachers are **looking for games** (such as, or other than, Bingo) that can be **played online** (e.g. using Google Meet) by **groups of pupils with a teacher**, and that are supported by a presentation that can be shared to all players;
- issues that arise when trying to get **all pupils online at a particular fixed time**;
- setting up online **10-minute one-to-one teacher-pupil appointments** that other pupils can 'listen in on' … that when a teacher managed to do this twice the attendance was poor;

teachers' **present priorities** in their (great) efforts to support distance learning:

- that **primary teachers** are pleased if pupils are engaging in any aspect of mathematics … that **the nature of tasks designed specifically for primary age pupils to do at home** is very important … tasks in which pupils use things that are normally found in the home are ideal … suggestion that new tasks are set approximately every three days;
- that teachers are trying to set **tasks that secondary pupils can work on independently** … some teachers are currently creating 'revision booklets' and quizzes … that it is a priority to **see some evidence that secondary pupils are trying to engage in the tasks** that are set … that some secondary teachers are setting tasks designed with the aim of enabling new learning;
- that **when secondary pupils are able to hear their teache**r (for example in recorded videos) they (seem to) do more work;
- some teachers are following their **normal lesson structure/timetable**, with a Zoom call at the start of each lesson during which the teacher 'explains the content of the lesson' and 'goes through notes';

'turning pupils around' from being disengaged to being engaged;

- in one school a greater number of primary-age pupils have become engaged in maths as a result of their teachers' encouraging them to **use Class Dojo to share their work (their 'maths products') with other pupils**;
- that pupils of all ages are engaging better when they can **communicate with each other** … enabling pupils to work in pairs … encouraging pupils to **work online in groups (for example using Skype or Zoom)** … some teachers have been contacting secondary pupils to explain to them how they can work online with other pupils… that some pupils are setting up their own groups … but that many pupils and parents are 'technically challenged';
- **contacting parents directly (by phone or email)** if their child of any age is not engaging in maths tasks that are provided … that phone calls to parents are likely to build permanent positive relationships … that most parents are grateful to receive

phone calls regularly, and that it is important for them to know that such support will continue … but that making many phone calls is time-consuming and tiring;

- that the **poorest children may be the most disengaged** through no fault of their own … that teachers appreciate advice about how best to support disadvantaged families;
- that 'low-engaging' pupils, as their trust grows, are becoming better at **talking openly during phone calls with their teachers**;

whether, and if so how, teachers are trying to take a **'stick' (rather than a 'carrot') approach** to improving engagement:

- contacting parents initially only to **check that 'everything is OK'**;
- that a teacher's first attempt to run a **live maths chat for pupils** was not a success … pupils were constantly posting comments, many of which were not approriate, in a way that was not manageable by one teacher alone … that live chats work best with **two teachers working together** … one teacher uses the microphone and manages any PowerPoint slides, while the other teacher monitors the chat section, responding to pupils' comments and questions, and removes from the chat any pupil who, after being warned, continues to misbehave;
- that it is very **difficult** to carry out all the **normal aspects of teaching** 'through just typing';
- that some **head-teachers** have supported maths teachers by informing parents that 'the work is there', explaining how the parents can obtain support, and reminding parents that, even if the work is revision, it is important, and **reassuring parents that there will be no sanctions**.

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

This is a part of a conversation about mathematical (or not-quite-so-mathematical) games to which teachers might direct pupils and/or parents, or that they might include in material sent home to pupils. The conversation was generated by this tweet from Dani Quinn:

and included these from Martyn Yeo and Dani Quinn:

Martyn @martynyeouk · Apr 21

Replying to @danicquinn and @DMmemathsmemes

Love the homework games from @AJMagicMessage and he is selling them to individual parents!

andrewjeffrey.co.uk/we-love-maths/

Dani Quinn ✏️📐🧮 @danicquinn · Apr 21

That is great! It is so helpful when platforms/resources have the option of being available to families (i.e. not having to be via school). One of the strengths of @TTRockStars for example. #mathscpdchat

these from Thomas Kendall, Andrew Jeffrey and Becks:

Thomas Kendall @tkendalluk · Apr 21

Replying to @danicquinn and @DMmemathsmemes

It's not that Mathematical but chesskid.com has a full course that any child (probably as young as 5) could follow to get them into chess.

ChessKid.com | Online Chess For Kids - 100% Safe and Free

Have your kids play and learn chess online with the best tools (tactics, puzzles, videos, lessons and much more...) at ChessKid.com - the #1 ches...

chesskid.com

Andrew Jeffrey @AJMagicMessage · Apr 21

Replying to @danicquinn and @DMmemathsmemes

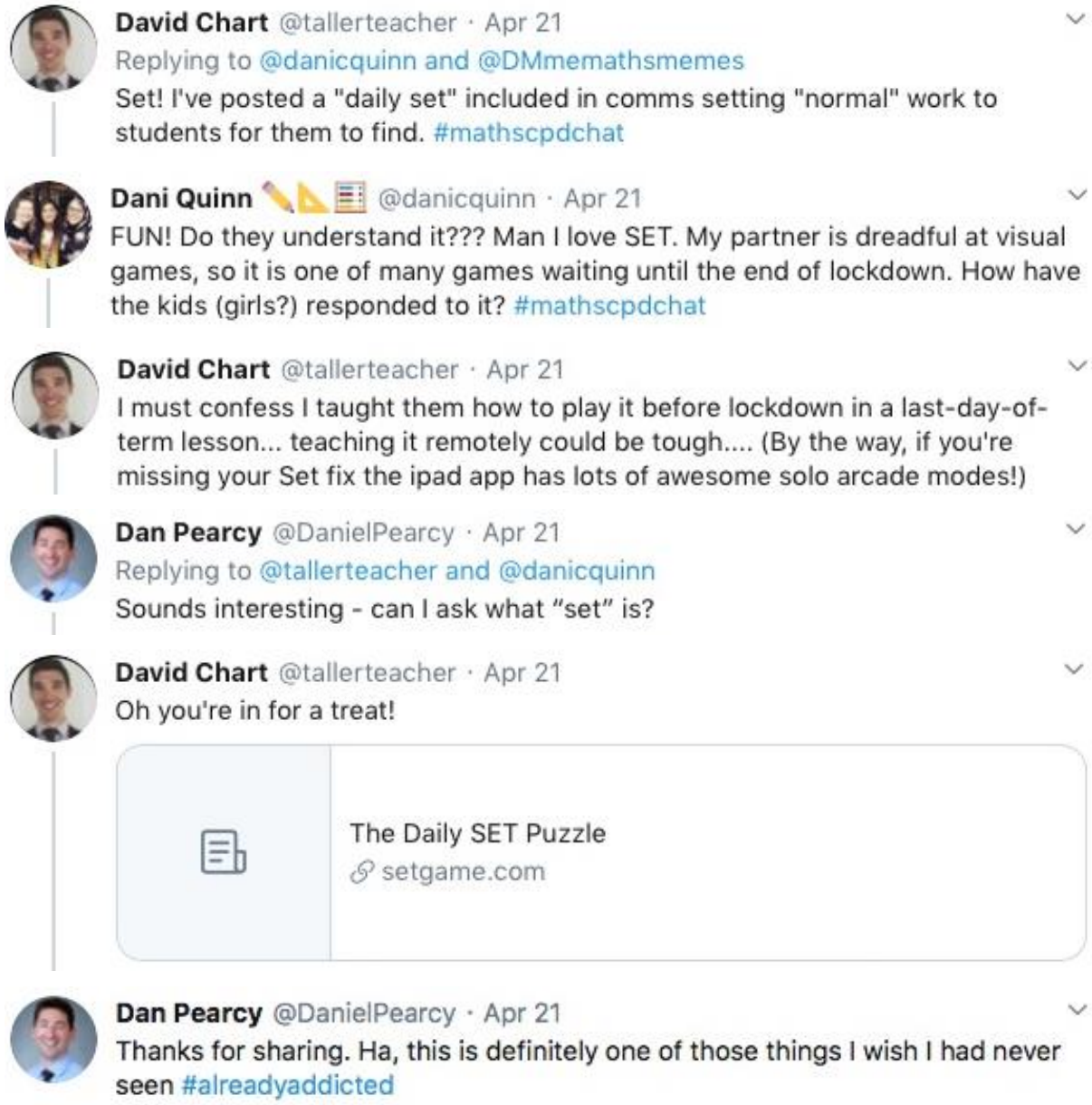
#MathsCPDChat Kenken is a perfect mix of fluency and reasoning. Here are lots of free ones: kenkenpuzzle.com

(Have to turn sound down though as they run ads.)

Becks @beckyreedmaths · Apr 22

Love kenken puzzles! I remember there was a @ParallelMaths homework on it for Year 7 last year. Never has my class so competitive!!

and these from David Chart, Dani Quinn and Dan Pearcy



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

Among the links shared were:

Extra support during school/college closures which is a new package of free resources from MEI to support remote mathematics teaching. It was shared by Alison Hopper

'YesUCan' from the GLOW Maths Hub which is the website of the GLOW Maths Hub. It includes resources and material that is designed to generate in pupils a positive attitude to maths and that might be worked by pupils on at home. It was shared by Dave Bowman

Maths and Magic which is the website of Andrew Jeffrey (the Mathemagician). It includes a variety of interesting teaching resources. Andrew's 'we love maths homework diaries' each contain ten 'fun maths games which need no special equipment or particular calculation methodology', aiming solely to get children enjoying thinking mathematically at home. It was shared by Martyn Yeo

KenKen Puzzles which is a website containing many various mathematical games and puzzles. It was shared by Andrew Jeffrey

The Daily SET puzzle which is a website on which a different SET puzzle appears every day. It includes a link to a video providing very clear instructions for playing this online game It was shared by David Chart

Blutick which is a new, well worth exploring, free website to support the teaching and learning of the UK 11-16 mathematics curriculum. It was shared by Alison Borthwick

Maths with Parents which is a website designed to support families to enjoy learning maths together. It was shared by Lucy

EzyMaths which is a GCSE Maths digital teaching platform that 'provides a wealth of video and assessment resources, covering the AQA, Edexcel and OCR exam board syllabuses'. It was shared by Mr Hawes Maths

Support for maths learning and teaching during school closures which is a new part of the NCETM website. It has been set up in order to help teachers and other maths educators keep maths learning going while children and teenagers are at home. It was shared by Mary Pardoe