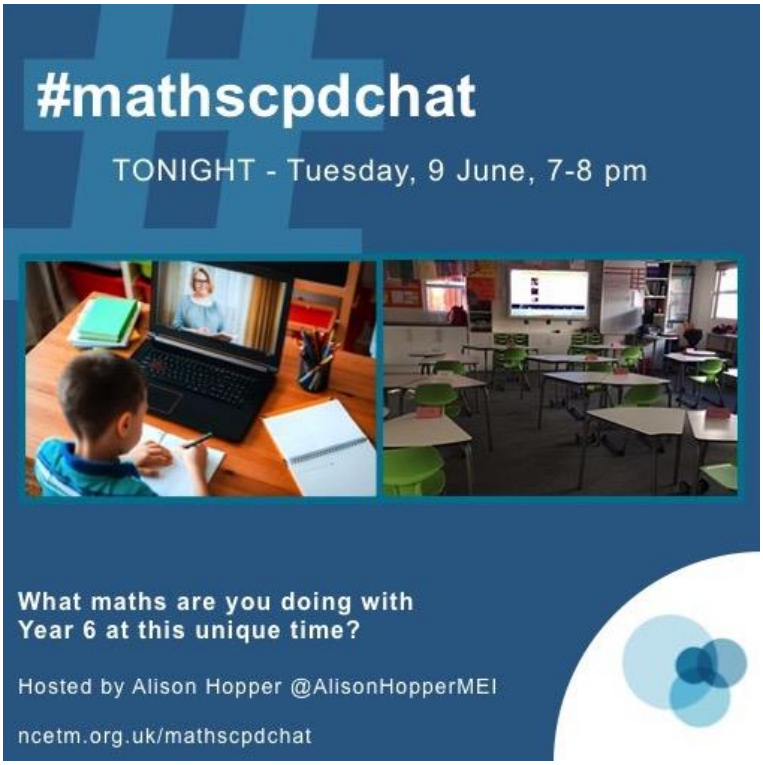
#mathscpdchat 9 June 2020

What maths are you doing with Year 6 at this unique time?

Hosted by Alison Hopper

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 focused were:

whether Year 6 teachers are getting good engagement from pupils working at home:

- that **one school**, which is providing a full timetable of online maths lessons addressing a 'much more relaxed curriculum than normal', **is engaging pupils well** … for example a Zoom lesson that focused on proportionality in the context of recipes for crêpes, with instructions in French, was popular with pupils;

what Year 7 teachers would like to know about the Year 6 teaching and learning that is happening now:

- the **kinds of task** that are being set for Y6 pupils to work on at home … whether/how the maths that Y6 pupils are doing now **differs from what they would have been doing normally** 'during the run up to SATs' … that in some schools pupils are engaging in **tasks that are very different** to 'the normal routine of past papers and practice questions';
- teachers are hoping that present Y6 pupils, compared with Y6 pupils in previous (normal) years, will have **developed greater independence in approaching tasks** … but that some Y6 pupils **may have lost confidence** as a result of being unable to cope adequately with independent learning at home;
- that the gathering, by Y7 teachers, of information about current maths learning in Y6 may be **facilitated by their approaching primary teachers in a supportive manner**, asking, for example, "Is there anything we can do to help you?" … Y7 teachers pointing Y6 teachers to **interesting tasks within (their own or other) 'maths transition units'** (links provided below);
- that it 'would be nice' for secondary teachers to **plan their Y7 teaching for September knowing 'exactly which pupils in Y6 have been able to access work set, and which haven't'** … that it would also be helpful to know something about the **nature of barriers to engagement** that their pupils are presently up against … that **if secondary schools are not 'back as normal' in September**, information about current Y6 pupils will be particularly helpful … how such information might be communicated;
- Y7 teachers would like to know what **manipulatives and modes of representation** have been used by pupils and teachers in Key Stage 2 … that, when Y7 teachers are asking for information of this kind, in return they **need to be prepared to answer questions from Y6 teachers**, such as "What maths would you like us to do with Y6 pupils during the rest of this term?";
- how **Y7 teachers who have rarely, or never, used any manipulatives** in their teaching (because they have 'preferred to jump straight into the abstract') can now **prepare themselves to adopt teaching approaches that are new to them** … that some secondary teachers fear that their Key Stage 3 and 4 pupils will see the use of manipulatives 'as a step backwards and a frustration' … that the experiences of some secondary teachers 'tell them' that high-attaining pupils 'struggle with these concrete approaches' … that some secondary teachers who themselves 'were never taught maths using these approaches' believe that they will value developing new and deeper understandings … that some secondary teachers who have only recently

started to use manipulatives in their teaching are finding that they are **very effectively facilitating and enhancing the maths learning of all pupils in Key Stage 3**;

the kinds of mathematical **learning experience that primary teachers are presently aiming to provide for Y6 pupils**:

- that the mathematical focus of teaching and learning planned for those Year 6 pupils who are in school is not necessarily the same as that of tasks set for pupils who are working at home … but that some Y6 teachers are **endeavouring to teach the same maths to all pupils whether they are in school or working at home** … for example a teacher who at the time of the discussion was planning a unit of work on geometry for his Y6 pupils to 'do' in school this term, was also devising/adapting material to make it (the 'same' tasks/teaching?) available online;
- that it is possible (likely?) that **not all Y6 pupils will have had access to the same curriculum areas by the end of this term** … for example one teacher expressed the view that 'pupils working at home will be better off sticking with worksheets, because they won't have a teacher to talk them through the PowerPoint slides that will be used in school';
- that some teachers are **'rejoicing that the relentless practice of arithmetic for the SATs won't be happening this year'** … that instead Y6 pupils working at home have been set **much more interesting, exploratory tasks** that provide opportunities for pupils to make decisions and apply reasoning … that some **parents have communicated their frustration** caused by not knowing how to cope with maths home-schooling **when 'answers are not provided'** … for example, the parent of a pupil who 'had been asked to do NRICH investigations for home learning' complained, writing in a message to the teacher 'There are no answers!' … the parent added that she felt that the tasks would be good challenges for her child to work on in school, but that she couldn't leave her child to 'just get on with it' as she could with a worksheet … secondary teachers are concerned that if the need arises for **home learning by Key Stage 3 pupils next term,** similar issues may present **similar difficulties** … that perhaps when investigatory tasks are set for home learning, parents might be provided with suggested 'ways in' and at least one example of how a pupil might follow a possible line of investigation;

how teachers are taking this present unique situation as an **opportunity to develop new teaching approaches**, rather than 'going back to what we've always done before':

- a **secondary maths team have been 'working together during lockdown'** to build their understanding of **what 'reasoning' means as pupils progress in school mathematics** … they have been focusing on how the mathematical reasoning skills

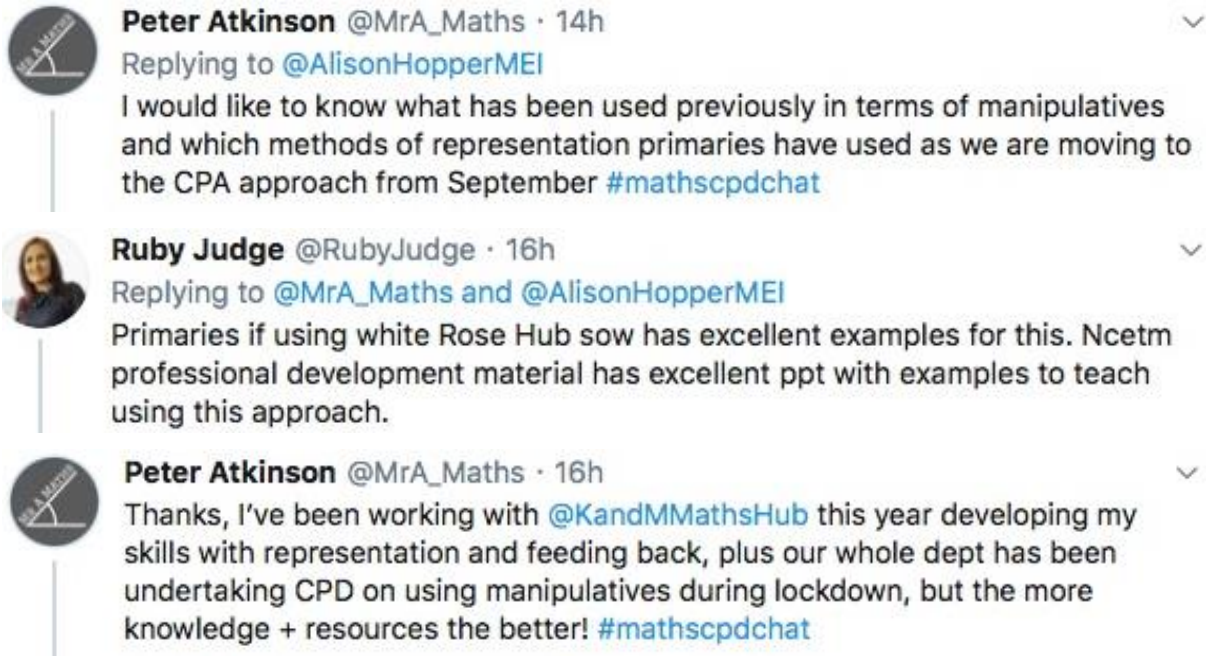
of next term's Y7 pupils may have been developing during Key Stages 1 and 2, and how they might plan to develop such skills further during Key Stages 3 and 4;

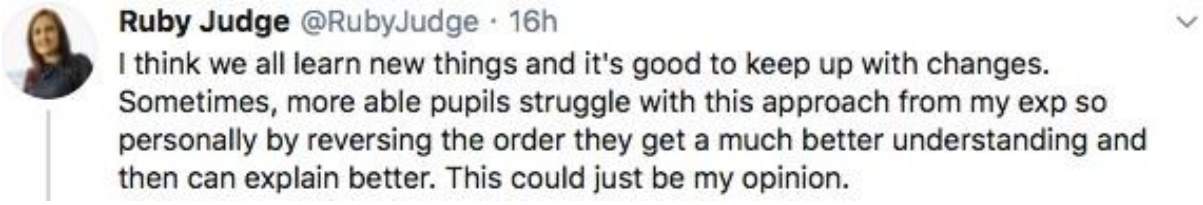
- that **material that teachers have been devising** to use in online classes will be available for them to use in normal in-school teaching in the future;
- many teachers have **striven to develop professionally** by engaging in organised online PD sessions such as free webinars, working with colleagues online, and by catching up on reading;
- some teachers have been able to **interact, and develop good relationships, with parents** to a much greater extent than ever before;
- that **secondary teachers have developed greater respect for the professional work of primary teachers** and are grateful to them 'for everything they do to prepare pupils for moving-on to their secondary schools'.

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 how two Key Stage 3 teachers are starting to change their teaching approaches to accommodate the use of manipulatives and new-to-them ways of representing mathematical ideas. They had been prompted to consider these changes by looking-into aspects of successful maths teaching in Key Stage 2. The conversation was generated by this tweet from Alison Hopper:

and included these from Peter Atkinson and Ruby Judge:





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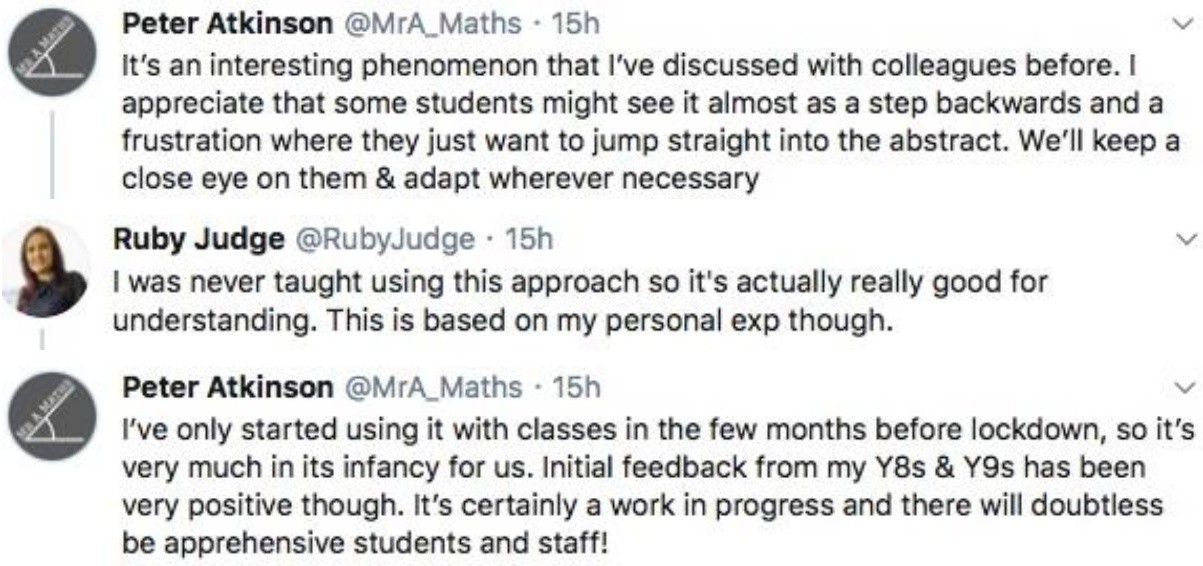

(to read the discussion sequence generated by any tweet look at the'replies to that tweet)

Among the links shared were:

The New Normal of Learning: Build Back Better which is a recent blog by John Hattie. He writes about aspects of teachers' future practice that might be improved by their identifying, and learning from, aspects of 'the pandemic teaching and learning experience' that have been going well. It was shared by Alison Hopper

Mathematizing for Families which is another recent blog by John Hattie written for parents of school pupils. He gives examples of ways in which 'math practice' need not 'be all exercises and worksheets'. It was shared by Alison Hopper

Virtual Maths Escape Room which takes you straight to the tasks and starting-points-for-activity in the *Year 6/7 Maths Transition Challenges* created by teachers at the George Pindar School. It was shared by Miss Ward-Gow

Crypto Corner which is a website from *Interactive Maths* 'dedicated to explaining clearly how a variety of codes and ciphers work, how to use them to both encrypt and decrypt a message, and how to use methods to help break a code that you have intercepted. It was shared by Miss Ward-Gow

Maths Snacks Videos which is a collection of short videos from the Association of Teachers of Mathematics designed to support children and their parents while children are away from school for any reason. They are a mixture of tasks, puzzles, challenges and games that are selected to enrich the mathematics taught at school. It was shared by Mary Pardoe

MEI Extra support during school/college closures which is a page on the MEI website that includes links to the popular *Calculator Crunch Y6/7 Transition* tasks. It was shared by Mary Pardoe