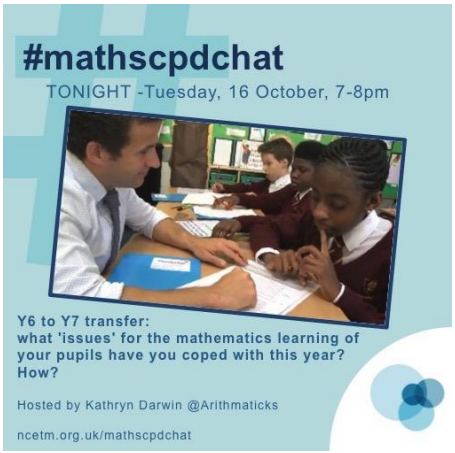
#mathscpdchat 16 October 2018

Y6 to Y7 transfer: what 'issues' for the mathematics learning of your pupils have you coped with this year?
Hosted by @Arithmaticks

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



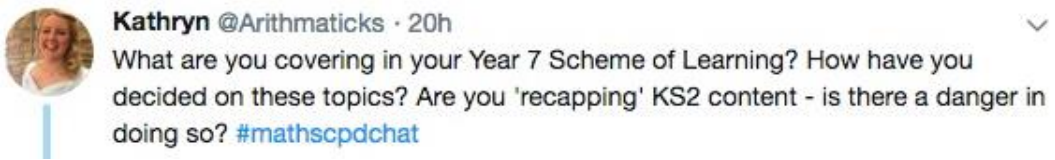
Some of the areas where discussion focused were:

- **primary and secondary teachers working together** (shared professional development) … teachers' knowledge and understanding of teaching/learning approaches and content in year groups above and below their own … secondary teachers observing (teaching?) lessons in Y5 and Y6;
- **KS2 test (SATs) scores** … whether secondary schools 'trust' them, and how they use them … secondary teachers own ways of **assessing pupils when they arrive in Y7** … eg 'I establish what they know and then use this in problem-solving';
- **transition material** ('bridging tasks') that pupils start in Y6 and then continue to work on in Y7 … 'helps identify who will need support, stretch etc';
- ways in which what pupils experience as/in mathematics in Y7 may be **different to their previous experiences** … for example different (mathematical) language (eg

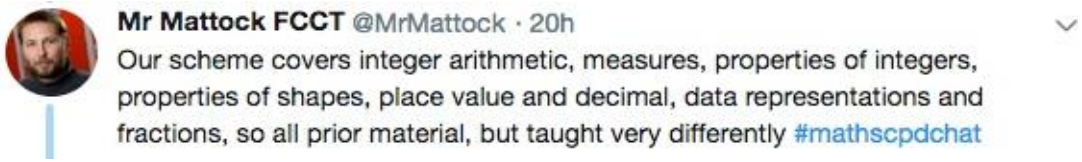
'subtract a negative …' rather than 'minus a minus'), different representations or different uses of manipulatives … (long discussion about use of 'borrow', 'carry', 'regroup', 'exchange' in arithmetical procedures);

- whether, and to what extent, tasks in Y7 are/ought to be **more or less 'open-ended' and 'problem-solving'** in nature compared to tasks in previous or later years;
- focusing (for example in 'transition materials') on pupils' mastery of ideas that are fundamental to **multiplicative reasoning**;
- **revisiting** in Y7 concepts pupils may have met in KS2 **'in more exciting ways than through 'drill and skill'**';
- the 'content' of **Y7 schemes of learning** … linked to discussion of differences between KS2 and Y7 approaches to same (or slightly extended in Y7) content;
- pupils' understanding of **fractions** on arrival in Y7 … for example, 'their procedural facility is stronger than in the past, but their depth of understanding is less' … 'result of emphasis on procedures in preparation for SATs?';
- whether Y7 teachers should assume that all arithmetic with **negative numbers** is new to Y7 pupils … teaching approaches when introducing arithmetic with negative numbers;
- 'unitising' in relation to **simplifying both numerical and algebraic expression**s;
- recent **research papers** that can help teachers address KS2/3 transition issues (for example from the Education Endowment Foundation as shown in the links below).

An interesting 'conversation' of tweets, about the mathematics learning planned in one school for Y7 pupils, followed from this tweet by Kathryn Darwin:



including this one from Mr Mattock:



this from Martin Forsyth:

this from Mr Mattock:

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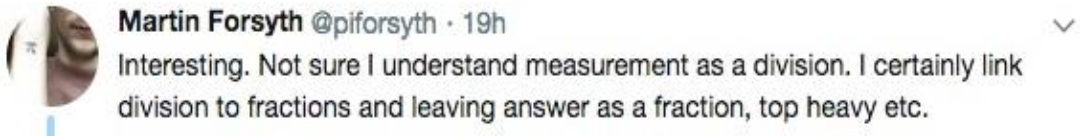
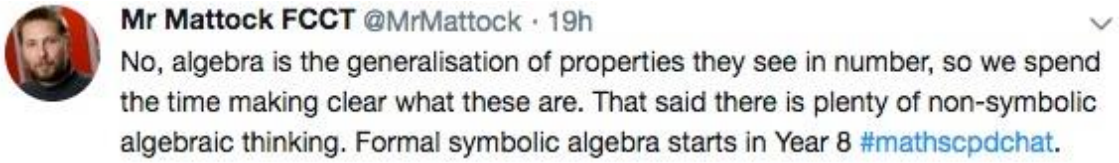


this from Mr Mattock:

this from Rufus:

this from Mr Mattock:



and this one from Heather Scott:

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

Among the links shared were:

Improving Mathematics in Key Stages Two and Three: Evidence Review which is a report (March 2018) from the Education Endowment Foundation by Jeremy Hodgen (UCL Institute of Education), Colin Foster (University of Leicester), Rachel Marks (University of Brighton) and Margaret Brown (King's College London), shared by Mary Pardoe

Transition of Pupils from Key Stage 2 to 3 which is an article from Mathematics Teaching 226 (ATM) by Geoff Tennant and Dave Harries. It looks at problems that may arise in establishing and maintaining the best possible provision for supporting the learning of very high achieving pupils before, as and after they move from KS2 to KS3, shared by Mary Pardoe

Place Value as a Building Block for Developing Fluency in the Calculation Process which is an article from NRICH that encourages exploration of exchange and 'unitising', in order to help children become more fluent when calculating, shared by Lisa C

Visible Maths which is a book by Pete Mattock (@MrMattock) about using representations and structure to enhance mathematics teaching in schools, shared by Mr Mattock

Open Middle which is a collection of challenging mathematical problems from maths-educators such as Dan Meyer and Robert Kaplinsky, shared by Steve L

MathsNAV which is online Medium-Term-Planning support for mathematics, shared by Steve L