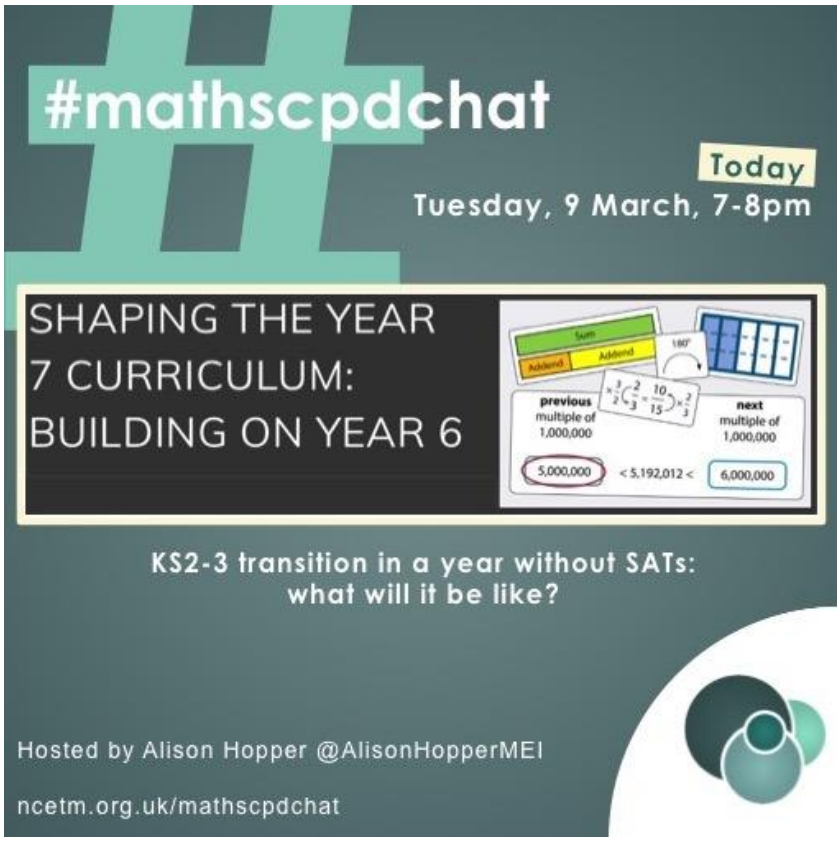
#mathscpdchat 9 March 2021

KS2-3 transition in a year without SATs: what will it be like?

Hosted by Alison Hopper

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



Among the links shared during the discussion were:

KS2-3 Transition which is part of the MEI website, and includes a link to where you can register to take part in the current sequence of *Supporting Key Stage 2 to 3 Transition in Math*s webinars. There you will also find links to the Calculator Crunch Y6/7 materials. It was shared by Alison Hopper

Year 7 Lesson Plans which is also part of the MEI website. These *Get Calculating* lessons focus on developing the use of calculators in a range of mathematical contexts, and are suitable tasks for KS2-3 transition days. It was shared by Alison Hopper

Primary Activities which is another part of the MEI website. It contains links to various useful resources, including the amazing educational puzzle app, *Sumaze! Primary*. It was shared by Alison Hopper

Curriculum Prioritisation in Primary Maths which is NCETM guidance about what maths primary teachers should aim to teach for the rest of 2020/21. It was shared by Alison Hopper

EEF Blog: Integrating evidence into mathematics teaching - Addressing Assessment which is part 1 of a new monthly series of blogs from the Education Endowment Foundation (EEF). It supports teachers and maths leads in implementing the evidence from the EEF's *Improving mathematics in Key Stages 2 and 3* guidance report. It was shared by Alison Hopper

Exploring Area and Fractions - Board Task 3B which is a free-to-download task from the ATM. It is a practical mathematical task that can be started at KS2 or KS3 and subsequently built on. It was shared by Mary Pardoe

Cuisenaire - from Early Years to Adult which is an ATM book-and-download written by Helen Williams, Mike Ollerton and Simon Gregg. It illustrates how you can use Cuisenaire® rods with your learners whatever age they may be. It was shared by Mary Pardoe

The screenshots below, of chains of tweets posted during the chat, show parts of several conversations about collaboration between Y6 and Y7 teachers. It includes discussion about tasks that pupils start in Y6 and continue at the beginning of Y7, continuity of use of the same representations from Y6 into Y7, and, incidentally, about how it is helpful to involve parents in their children's maths at the time of transition. **Click on any of these screenshots-of-a-tweet to go to that actual tweet on Twitter.**

The conversation was generated by this tweet from Alison Hopper:

and included these from Mr Hassall, Mary Pardoe, Sharon Malley and Alison Hopper:

Mr H @ThomasJHassall · 13h
Replying to @AlisonHopperMEI
So simple but folding paper to show equivalent fractions... 😅 Can't believe I haven't done it before!

Mary Pardoe @PardoeMary · 14h
Replying to @PardoeMary
Interesting ... did you do it as a cross-phase 'continued' task? #mathscpdchat

Mary Pardoe @PardoeMary · 13h
I was reminded by Peter Lacey, @ecarda1, an hour or so ago of cross-phase tasks used in the past to support maths-learning transition ... #mathsCPDchat

Hi Mary, many years ago we identified a small number of "bridging tasks" which started in Y6 & completed in Y7. Y7 teachers were involved with the launch & Y6 teachers with the completion. Pupils took "work in progress" with them. I think the real value was in the cross-phase teacher collaboration. It needs a degree of external coordination to make it happen. I remember it being good fun!

5:43 PM

Feel free to copy and paste. The selection of the bridging tasks should itself be collaborative. If left to secondary it is likely to underestimate demand. I'm trying to recall the collection I was involved with. It may have included Maxbox - cutting different corners from squares & folding sides & finding volume : discrete data/graphs in Y6 and continuous in Y7. This was over 20 years ago so I may be well off the mark!

Sharon Malley @mathsmumof2 · 13h
Replying to @PardoeMary and @ecarda1
I remember the bridging units! #mathscpdchat

Mary Pardoe @PardoeMary · 14h
Replying to @AlisonHopperMEI
Maybe this very useful EYFS-to-KS5-applicable book might suggest some KS2-to-KS3 tasks?
atm.org.uk/Shop/Cuisenair..
#mathscpdchat

Cuisenaire - from Early Years to Adult, Book and Download

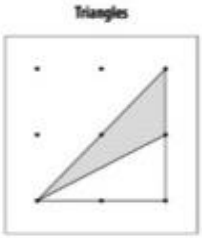
ATM Number 1 Best Seller, Cuisenaire - from Early Years to Adult illustrates how you can use Cuisenaire rods with your learners, whatever age they may be. Written by Helen Williams, Mike Ollerton and Simon Gregg. EYFS, KS1, KS2, KS3, KS4, KS5, Adult. Available from £12

Non-Member Price: £16.00
Member Price: £12.00

Quantity 1 Add to cart

Mary Pardoe @PardoeMary · 14h

More ideas can for cross KS2/3 tasks be found on the @ATMMathematics website ...
e.g. this KS2/3 task (free) ...
atm.org.uk/Exploring-Area...
#mathscpdchat



Board Task 3B

This is one for 14 'Free Standing' tasks from **Exploring Area and Fractions with Square Geoboards**. These are practical mathematical tasks that can be started at KS2 or KS3 and subsequently built on.

This task is presented as a double page spread. The diagram is shown on the left while information for the teacher is on the right.

Alison Hopper @AlisonHopperMEI · 14h

... and more on the @MEIMaths website if I am allowed! mei.org.uk/Primary-KS2-3-...
mei.org.uk/y7-lesson-plans - all these will have linked Y6 lessons by the summer term ... and #CalculatorCrunch #mathscpdchat

these from Alison Hopper, Tazreen Tershanah and Sharon Malley:

Alison Hopper @AlisonHopperMEI · 14h

There is a really interesting blog from @MathsMrCox @EducEndowFoundn on assessment educationendowmentfoundation.org.uk/news/eef-blog-...
#mathscpdchat

Tazreen Tershanah @tershanah · 14h

Replying to @AlisonHopperMEI @MathsMrCox and @EducEndowFoundn
#mathscpdchat Thanks for sharing this. Particularly like the diagram.

Sharon Malley @mathsmumof2 · 14h
That is a fabulous diagram we reviewed division with year 7 today and fully modelled it with place value counters linking it to the short division algorithm. #mathscpdchat

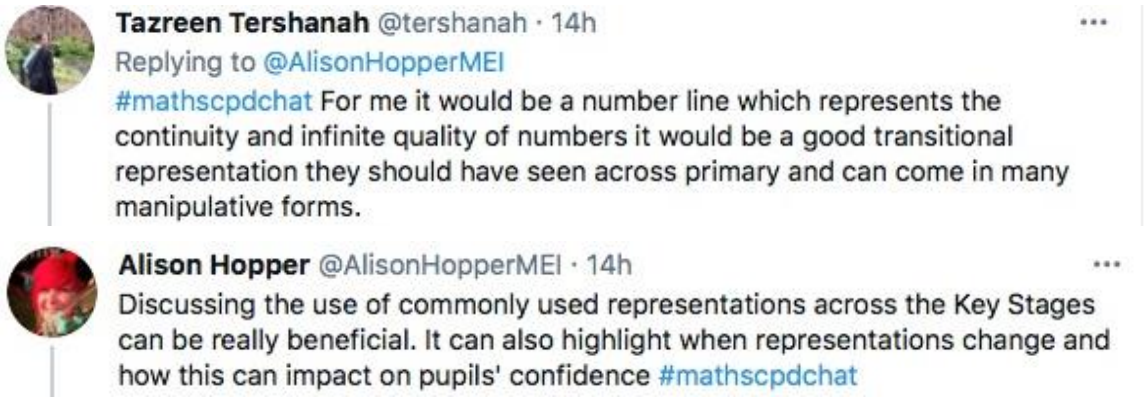
Alison Hopper @AlisonHopperMEI · 14h
That sounds great. Is it something you could share/discuss with your feeder schools? Could this be a model for cross-phase discussions? #mathscpdchat #Y58Continuity

Sharon Malley @mathsmumof2 · 13h
Yes definitely looking at how multiple representations can be used to model the mathematical structures is such a useful discussion to have #mathscpdchat

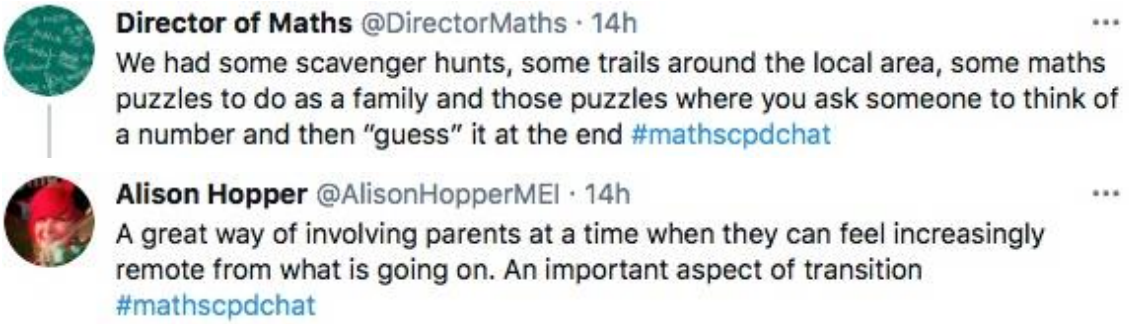
Sharon Malley @mathsmumof2 · 14h
We extended the short division algorithm to show why 2/3 and 3/7 are recurring decimals. I got a proper wow moment when they realised what was happening when the remainders started repeating...#mathscpdchat

these from Alison Hopper and Tazreen Tershanah:

Alison Hopper @AlisonHopperMEI · 14h
What would be your top topics for cross-phase discussion around representation and structures? **#mathscpdchat**



and these from Gemma Scott, Sharon Malley and Alison Hopper:



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

Some of the areas where discussion focused were:

the host started by inviting teachers to share thoughts about the best aspects of having all pupils back in school this week:

- **talking about maths** with students in a classroom;
- that **students using mini-whiteboards** enables teachers to 'gather pupils' responses' quickly and easily so that they can adjust their teaching accordingly;
- the **actual physical presence of students** and their body language 'made me smile loads';

the discussion rapidly moved on to focus on the maths-learning transition of KS2 pupils into KS3 this year, with teachers commenting on how they will manage this transition in the absence of any SATs data:

- some teachers reported that last year they found that **not receiving any test 'data' was 'refreshing'** … as a consequence many had moved to **teaching Y7 pupils in mixed-attainment groups**, which had resulted in teachers thinking more deeply than in the past about how best to provide **equal opportunities for all pupils** … starting secondary school became an opportunity for pupils 'to start again' … one teacher had spent a lesson during the first week of Y7 last year 'talking about what a mathematician is and what mathematical behaviour is' and about the importance when doing mathematics of 'reasoning, communicating and reflecting';

other practice intended specifically to support pupils' maths learning at the time of their transition from KS2 to KS3 that teachers adopted for the first time last year (2020), and that they hope/intend to repeat this year:

- teachers described some **'transition tasks' that pupils can do with their familie**s … for example, scavenger hunts, and puzzles/games that the whole family solves/plays together … that this is 'a great way of involving parents' at this significant time for their children;

- some teachers reported that last year they set **tasks for Y7 pupils that they had never previously used** … for example a teacher mentioned an exploration of equivalent fractions that pupils carried out by folding sheets of paper;
- there was some discussion about **cross-phase extended tasks** … pupils are set off on a task by their Y6 teacher, who oversees their work on it for a week or two at the end of the summer term … then at the start of the autumn term the Y7 teacher picks up where the Y6 teacher left off, continuing to prompt and intervene appropriately until the task is completed … some examples of suitable task-sources were mentioned (links provided above) … reference was made to the mathematics ***KS2-3 Bridging Tasks*** which were published by the National Curriculum Council (NCC) about 20 years ago (participants in the chat were reminded of these tasks by Peter Lacey (@ecarda1) who was, at the time they were published, the lead professional officer for mathematics at the NCC);
- there was a suggestion that useful **discussions between Y6 and Y7 teachers might focus on some new blogs** (the next one – about misconceptions – will be published during March or April) from the Education Endowment Foundation (EEF) about people integrating into their teaching maths-learning evidence that is summarised in the EEF's ***Improving mathematics in Key Stages 2 and 3*** material … some teachers are finding that the diagram *Integrating evidence into maths teaching*, which is on the first page of the EEF's *Addressing Assessment* blog is particularly useful in their Y7 teaching (link provided above);
- teachers commented that it is useful for Y6/7 teachers to look together at **'how multiple representations can be used to model mathematical structures'** … a teacher suggested that it would be helpful to look at ways of using number-lines, and at manipulatives that might be effective aids in their use … that it is important to know/discuss **when (in a pupil's mathematical learning 'timeline') the representations that they meet change** 'and how this can impact on pupils' confidence';
- it was pointed out that knowing about individual pupils' degree of confidence in the mathematics they are trying to do is an aspect of the **care that a maths teacher can take-with/show-for the learning of their pupils** … a teacher mentioned an about-to-be-published new book by Anne Watson (@annemathswatson), ***Care in Mathematics Education, Alternative Educational Spaces and Practices***;
- a teacher commented that, although planning now to support KS2-3 transition is important, **'using formative assessment to adapt learning will be essential in September'**;

information that KS3 teachers would welcome from their primary 'feeder' schools as pupils move from KS2 to KS3:

- they want to know **HOW pupils have 'been taught** particular things so that we can consolidate, extend and also offer familiarity';
- **which concepts/ideas Y6 pupils worked on in school and which ideas they were expected to work on at home** … 'learning a new concept at home will be very different to

learning it at school' … 'last year I got all my team to colour-code curriculum statements: at-school/at-home/at-school-post-lockdown';

- **where/which pupils have struggled with 'basic skills'** … for example, who has struggled to master multiplication facts;
- information about **individual pupils' 'confidence, resilience, parental support, what they respond well to …'**;

transition activities and practice that teachers will go back to post-Covid;

- Y6 pupils being able during the summer term to **visit the secondary school to which they will be going** … experiencing at least one maths lesson there;
- **KS3 teachers spending time in their feeder primary schools**, being in maths lessons … KS3 teachers commented that in the past they 'always learnt a lot' from this kind of observation;
- that **working on maths yourself or with colleagues** empowers you to work with pupils in KS2 and/or KS3 … that this is **at the heart of current Year-5-to-Year-8 continuity work**, and that 'it is really exciting'.