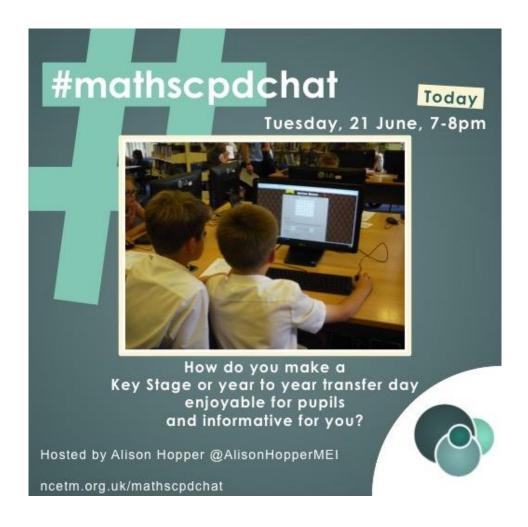


# #mathscpdchat 21 June 2022

How do you make a Key Stage or year-to-year transfer day enjoyable for pupils and informative for you?

Hosted by Alison Hopper

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



The links shared during this discussion were:

<u>Transition to further study</u> which is a resource from MEI provided to help teachers motivate Year 6 pupils in their maths learning during the transition to Year 7. It includes material from six Key Stage 2-3 Transition webinars each with a different mathematical focus, information about MEI's 'Calculator Crunch' programme, and notes about both their Year 6 and their Year 7 'Get Calculating' lesson plans. It was shared by <u>Alison Hopper</u>



<u>Year 6 Get Calculating lesson plans</u> which is a resource from MEI. The material might be used with individual pupils or when teaching a whole lesson. A PowerPoint file is also provided for each lesson to support the teaching of the tasks. It was shared by <u>Alison Hopper</u>

Year 7 Get Calculating lesson plans which is another similar resource from MEI. It was shared by Alison Hopper

<u>Calculator Crunch</u> which is where you will find MEI's Calculator Crunch challenges for 2019, 2020, 2021 and 2022! It was shared by <u>Alison Hopper</u>

<u>Digging for the why</u> which are the five episodes that have so far been published in a new MEI podcast for maths teachers of Years 5–8, looking at continuity and why it is important to dig for the 'why' in maths lessons. The episodes are conducted/hosted by <u>Andy Lumley</u> and <u>Alison Hopper</u>. It was shared by <u>Alison Hopper</u>

<u>School Transition and Adjustment Research Study</u> which is a research study based at UCL and Cardiff University which aimed to find out what helps children make a successful move to secondary school. It was shared by <u>Alison Hopper</u>

Exploding Dots which are mathematical explorations designed by <u>James Tanton</u>. It was shared by <u>Brooke Hunter</u>



A full illustrated summary of the discussions in this #mathsCPDchat follows.



#### Alison's introductory question ...



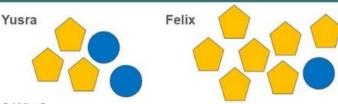
Alison Hopper @AlisonHopperMEI · Jun 21

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And we're off! Welcome to #mathscpdchat for this evening. Here is a bit of maths and a question: What would an activity like this allow you to find out on a transition day?

#### **Checkpoint 9: Final scores**

Yusra and Felix are playing a game. They each collect two different types of tokens. These are their final scores.



a) Who do you think won the game? Why?

... generated a few replies, and a further question from Alison:

Mary Pardoe @PardoeMary · 12h

#### Replying to @AlisonHopperMEI

I think Yusra won ... cos if a pentagon has value 1 and a circle has value 10 Yusra scored 23 but Felix only scored 17! (I know that wasn't your question.)

#mathscpdchat



### Joanne Green @MsJoanneGreen · 14h

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#mathscpdchat I think Felix won. I've given the circle 1-point and the pentagon 2-points, resulting in Y=8 and F=15

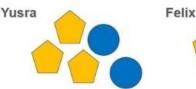


### Alison Hopper @AlisonHopperMEI · 12h

What if those weren't the values? I'll post the rest of the question ... #mathscpdchat #MCETMcheckpoints

### Checkpoint 9: Final scores

Yusra and Felix are playing a game. They each collect two different types of tokens. These are their final scores.



- a) Who do you think won the game? Why?
- b) If Yusra won the game, what would this tell you about the value of the circle compared to the pentagon?
- c) If the circle is worth 5, what might the pentagon be worth?
- d) If the pentagon is worth 5, what might the circle be worth?
- e) Could you write an expression to describe each person's final score?

Suggest some other values for the pentagon and circle. What is the smallest and largest each could be?





The screenshots below show conversations and single replies generated by **Alison's Q1**. Tasks that teachers and pupils have enjoyed using on Y6-7 transition days were described and discussed. Reasons why some pupils are reluctant to engage in open ended tasks was a particularly significant focus. **Click on any of the following screenshots-of-a-tweet to go to that actual tweet on Twitter.** The conversations were generated by this question from <u>Alison Hopper</u>:



Alison Hopper @AlisonHopperMEI · 12h Q1: What is your favourite maths activity for a transfer day and why? #mathscpdchat #Y58Continuity

One of the conversations was between <u>Catherine Edwards</u>, <u>Ian Noakes</u>, <u>Alison Hopper</u> and <u>Mary</u> <u>Pardoe</u> ...



Catherine Edwards @Edwards08C · 12h ···· Replying to @AlisonHopperMEI We've done the frogs on Lilly pads problem for years. Low floor, high ceiling, group and pair work. Plus someone made really nice concrete resources that we can reuse #mathscpdchat



IanNoakes @maths\_noakes · 12h Replying to @Edwards08C @mcwardgow and @AlisonHopperMEI Same. Love it



Alison Hopper @AlisonHopperMEI · 12h Another favourite. What does it tell you about new pupils as mathematicians? #mathscpdchat



Catherine Edwards @Edwards08C · 12h ···· Accurate description of what they are doing. Logical thinkers Organisation skills, even had a couple who've generalised with algebra over the years.#mathscpdchat



Alison Hopper @AlisonHopperMEL · 12h

Brilliant - something that gets them engaged and talking is great. Is this for new to Y7? #mathscpdchat

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### Catherine Edwards @Edwards08C · 12h

It's for our Y6 transition day. Always think it's interesting that the students who stand out in this activity aren't always the highest scoring when the SATs scores roll in. #mathsCPDchat



### Alison Hopper @AlisonHopperMEI · 12h

That's really interesting. You are asking them to think and perhaps some of the highest attainers aren't used to it #mathscpdchat



### Catherine Edwards @Edwards08C · 12h

Often find they dislike the open ended nature of it. The same was true when we used to do coursework though (from my experience) #mathscpdchat



### Alison Hopper @AlisonHopperMEI · 12h

Is there a sense that being good at maths meaning that you give a correct answer quickly? #mathscpdchat



# Anne Watson @annemathswatson · 56m · · Replying to @Edwards08C @PardoeMary and @AlisonHopperMEI What do they think the goal is? The goal isn't always to get an answer and close an exploration. A goal can be to state a conjecture, question, or

possibility that follows from what has been found so far.

... and Catherine's comment above prompted more discussion, including this conversation between Catherine Edwards and Alison Hopper ...



# Catherine Edwards @Edwards08C · 12h Often find they dislike the open ended nature of it. The same was true when we used to do coursework though (from my experience) #mathscpdchat



# Alison Hopper @AlisonHopperMEI · 12h Replying to @Edwards08C

Do you scaffold the frogs (that sounds wrong!) to help with this or throw them straight in (which also sounds wrong!!) #mathscpdchat

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Catherine Edwards @Edwards08C · 12h Start with kids at the front on chairs with coloured hats. Model recording the moves Have little laminated frogs and toads and lines with Lilly pads. We do have scaffolded sheets we can pass out if anyone is struggling #mathscpdchat



# Alison Hopper @AlisonHopperMEI · 12h Please can I come to the next one? Sounds great fun. #mathscpdchat



### Catherine Edwards @Edwards08C · 12h

I don't get to do it this year 😭 doing my assistant head bit instead #mathscpdchat



# Alison Hopper @AlisonHopperMEI · 12h

What a shame. Perhaps you could sneak in for part of it ... dressed as a frog?? Too far? #mathscpdchat





Catherine Edwards @Edwards08C · 12h Trying to calm them not give them nightmares!!!



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... and this between Catherine Edwards, Mary Pardoe and Alison Hopper:



#### Catherine Edwards @Edwards08C · 12h

Often find they dislike the open ended nature of it. The same was true when we used to do coursework though (from my experience) #mathscpdchat



# Mary Pardoe @PardoeMary · 12h Replying to @Edwards08C and @AlisonHopperMEI Interesting! Why do you think this is, Catherine? #mathscpdchat



### Catherine Edwards @Edwards08C · 12h Replying to @PardoeMary and @AlisonHopperMEI

I wonder if it is a confidence thing, used to getting 100%. I've noticed it with my set 1 Y9 this year. Due to COVID, they had missed harder units in y8 and now the work is more challenging and they aren't getting full marks (not supposed to) they are struggling #mathscpdchat



# Alison Hopper @AlisonHopperMEI · 12h

Confidence and measuring success too narrowly? I wonder if some find it hard to value the thinking and the 'struggle'? #mathscpdchat



# Catherine Edwards @Edwards08C · 12h ···· I always wonder if some of the joy of playing with problems is squeezed out during SATs prep. #mathsCPDchat



# Alison Hopper @AlisonHopperMEI · 12h · Quite possibly but perhaps unnecessarily. SATs assess the whole of KS2 and not just Year 6 - sometimes this is lost #mathscpdchat



Catherine Edwards @Edwards08C · 12h ···· It's also hard to blame Y6 teachers a lot rests on it. We do the same at Y11. #mathscpdchat



This was a completely different interchange prompted by a reply to Q1 from <u>Brooke Hunter</u>, between her and <u>Miss White</u> ...



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# Brooke Hunter @BrookeEHunter · 12h Replying to @AlisonHopperMEI

We are using Exploding Dots for the first time this year. We want to relieve anxieties, remove the fear factor & have something concrete the students can use (counters into the dot machine). It's low threshold, high ceiling & can link with KS3 Computing (Binary!). Wish us luck



# Miss White 🔆 @\_MissWhiteMaths · 10h Ooh I've not seen this - do you mind sharing where I can find/research it?



# Brooke Hunter @BrookeEHunter · 10h ···· Replying to @\_MissWhiteMaths and @AlisonHopperMEI Absolutely! It's effectively a place value lesson where they are counting in different bases without realising! It's a concept by @jamestanton explodingdots.org

(link provided above)

... and this was another, between MatheMusician and Alison Hopper:



MatheMusician @Mathe\_Musician · 12h Replying to @AlisonHopperMEI

The Handshake Problem. Low threshold, high ceiling. Friendly. Plenty of opportunities to demonstrate mathematical thinking informally, and to see who are the thinkers rather than those who have been well coached in basic drill.



# Alison Hopper @AlisonHopperMEI · 12h

Yes - a lovely one! We introduced our son to that with 'saying cheers' around a table - how many 'clinks'! #mathscpdchat

There was this single reply from <u>Jessica Tait</u> ...



Jessica Tait @jtait78 · 9h Replying to @AlisonHopperMEI Code breaking is always fun

... also this comment from <u>Vicky</u> about everything tweeted in response to the host's Q1:



Vicky\_Maths MCCT @vicky\_maths · 9h Replying to @AlisonHopperMEI

@mrarmstrongmath there are some interesting ideas here!

The host, <u>Alison Hopper</u>, tweeted this question-and-comment:





Alison Hopper @AlisonHopperMEI · 14h

Q1 follow-up - number based or otherwise? I used to do one with drawing straight lines on plain paper and then identifying the shapes created - ruler use and shape language together! **#mathscpdchat** 

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

In response to Alison's Q2 ...



Alison Hopper @AlisonHopperMEI · 14h ···· Q2 What do you hope that pupils get from a transfer day - mathematically and otherwise! #mathscpdchat

... there were these comments ...



MIF, FSET, MCCT, NPQML @mathingabout · 13h

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# Replying to @AlisonHopperMEI

Can I just enter the chat from left field? My strong view is that 'transitioning' is a subtle process that should take place throughout the Primary phase. I would advocate strong liaison-cross visits between feeder & secondary school. Making the process seamless. #mathsCPDchat



### Alison Hopper @AlisonHopperMEI · 23m

Completely agree. This chat focused on transfer days and how we get the best out of the short time we have. We explore the whole process through the Year 5 - 8 Continuity Work Groups and take a much broader and longer-term view #Y58Continuity #mathscpdchat



### Joanne Green @MsJoanneGreen · 15h

**#mathscpdchat** I'd want them to enjoy their maths by learning and exploring fun challenges. Also, to meet potential friends and find out that they too share their passion for maths. Resulting in a confidence boost.

... and a further question from Alison ...



### Alison Hopper @AlisonHopperMEL · 15h

We're getting some comments about what we as teachers get from these activities but what do you hope that the pupils get? #mathscpdchat

... which prompted this exchange:



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Catherine Edwards @Edwards08C · 15h Replying to @AlisonHopperMEI

Most of the aim of transition day for us is to remove the fear. So they get to talk to new people and hopefully experience success, so they come back on Sept feeling positive. #mathsCPDchat



### Alison Hopper @AlisonHopperMEI · 15h

Removing the fear is really important. Having been on 'the other side' for many years, I can see how that is key #mathscpdchat

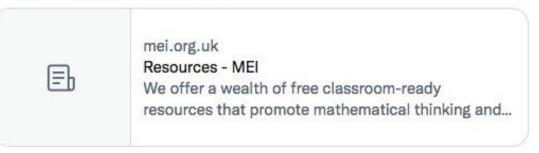
Alison shared these links ...



# Alison Hopper @AlisonHopperMEI · 15h @MEIMaths has produced some linked Y6 and 7 lessons which look at aspects of number and geometry (including constructions) Year 6 lessons mei.org.uk/resources/?ter...

# Year 7 lessons

mei.org.uk/resources/?ter... #mathscpdchat #GetCalculating



#### ... this comment ...



Alison Hopper @AlisonHopperMEI · 15h Replying to @AlisonHopperMEI They could be used across schools to support maths transition #mathscpdchat

... and this link:



....



Alison Hopper @AlisonHopperMEI · 15h

This study from UCL (not sure of the date) looks at the wider issues around transition STARS (UCL)ucl.ac.uk/pals/research/... #mathscpdchat



This question ...



Alison Hopper @AlisonHopperMEI · 16h Have the experiences of the last 2 years changed your approaches to transition? If so, how? #mathscpdchat



... prompted this short conversation ...



### Mary Pardoe @PardoeMary · 16h Replying to @AlisonHopperMEI

Interesting question. This was the start of a report about a transfer day several years before Covid. Has anyone else had older students planning tasks for younger ones and then working with them? #mathscpdchat

It's a June day; learners are spread across the field talking earnestly about mathematics. Some are engaged in solving the <u>Six Frogs</u> problem moving origami frogs into place, while others are trying to predict how long it will take to fill the white enamel bath propped against the classroom wall with water running into it from a hosepipe. It's the afternoon and although the learners have been working with their teachers on mathematical tasks all day, there has been no lapse of concentration.

Closer inspection reveals that the learners are Year 5 pupils and the 'teachers' are Year 10 students. There are a few grown-ups around and they too are doing mathematics, asking some good questions and moving the learning on.



#### Alison Hopper @AlisonHopperMEI · 16h

It would be interesting to reflect on the difference between virtual and face to face activities. It could be a way of starting transition for the least confident perhaps #mathscpdchat



### Mary Pardoe @PardoeMary · 16h

Yes. The least confident might respond better to students teaching them than to teachers ... they know students aren't 'judging' them in the same

way?

#mathscpdchat

... and these comments ...



# Replying to @AlisonHopperMEI

Catherine Edwards @Edwards08C · 16h

We're looking much more a routines, personal development and meeting the children and them meeting us. We're around 40% SEND and 50% PP, so the last few years have really driven home the need for pastoral emphasis #mathscpdchat



#### Alison Hopper @AlisonHopperMEI · 16h

... and you've answered my next question too. That's a high proportion of SEND and PP #mathscpdchat

... which generated another general question:



Alison Hopper @AlisonHopperMEL · 16h How do you strike the balance between pastoral and academic focuses in your transition activities? #mathscpdchat #Y58Continuity

...



#### Alison's Q4 ...



Alison Hopper @AlisonHopperMEL · 16h ···· Q4 (or possibly 3) What else do you do to support transition other than the transfer day? #mathscpdchat

#### ... prompted this conversation ...



# Catherine Edwards @Edwards08C · 16h

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### Replying to @AlisonHopperMEI

Restarting the program at the moment, but it starts in Y3 with our feeder schools. Lots of short activities, invitations to use specialist rooms and equipment.

open evenings and transition evenings. Student parliament go do assemblies at primary. HoY SENDCo visit #mathscpdchat



### Alison Hopper @AlisonHopperMEI · 16h

Great that when it gets 'real' in Y6 they are already familiar with the environment and might even recognise faces there #mathscpdchat



### Catherine Edwards @Edwards08C · 16h

It is nice, some of our current Y10 , I've known since they were in y4. #mathsCPDchat



### Alison Hopper @AlisonHopperMEI · 16h

That must make a difference. My last Y6 class are just finishing their GCSEs.

... and these comments:



### MIF, FSET, MCCT, NPQML @mathingabout · 15h Replying to @AlisonHopperMEI

I would encourage secondary staff to pop into primary school, conduct some -Year 6 lessons at the feeder schools. This will get students to see familiar faces when they eventually enter Year 7. This is what I mean when I wish to see a subtle transitioning process. #mathsCPDchat



### Alison Hopper @AlisonHopperMEL · 26m

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I would also encourage secondary staff to watch their primary colleagues teaching maths so that they see the way that they engage and the pedagogical approaches to which they are accustomed. I think this is a vital part of the process #Y58Continuity #mathscpdchat



Finally, Alison shared some more helpful resources:



Alison Hopper @AlisonHopperMEI · 16h

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We are heading into the last few minutes. Here are some other places you might want to look ... #mathscpdchat



Alison Hopper @AlisonHopperMEI · 16h Replying to @AlisonHopperMEI

#CalculatorCrunch is running at the moment (aimed at Y6 and 7) and all current and past resources are here mei.org.uk/resources/?ter... #mathscpdchat



mei.org.uk Resources - MEI We offer a wealth of free classroom-ready resources that promote mathematical thinking and...



Alison Hopper @AlisonHopperMEI · 16h Replying to @AlisonHopperMEI

@MEIMaths podcast 'Digging for the Why' has an episode focused on transition from KS2-3 mei.org.uk/category/podca... #mathscpdchat





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### Mr Hart @hartmaths · 4h

We've got 40 minutes to do maths for the Y6 induction days next week. Is anyone else in a similar position? What are you using? Pls RT @mathsjem #mathschat



MrsD @MrsDMaths · 2h

This was talked about on #mathscpdchat with @AlisonHopperMEI last night e



### Alison Hopper @AlisonHopperMEI · 1h

Yes lots of ideas here too mei.org.uk/teachers/prima... #CalculatorCrunch #GetCalculating lesson ideas and remember the #NCETMcheckpoints. Lots of lovely discussion opportunities #Y58Continuity



mei.org.uk Transition to further study - MEI Keeping Year 6 pupils motivated in their maths learning during the transition to Year 7 can be challenging, but we've...

(links provided above)