

**All of our Work Groups are free**

***News from our Maths Hub Lead, Abha Miller:***

***Dear All,***

***What a year! I know we are all looking forward to the easing of lockdown . However in words of Professor Chris Whitty , ‘this steady progress relies on us remaining vigilant and careful as we unlock’.***

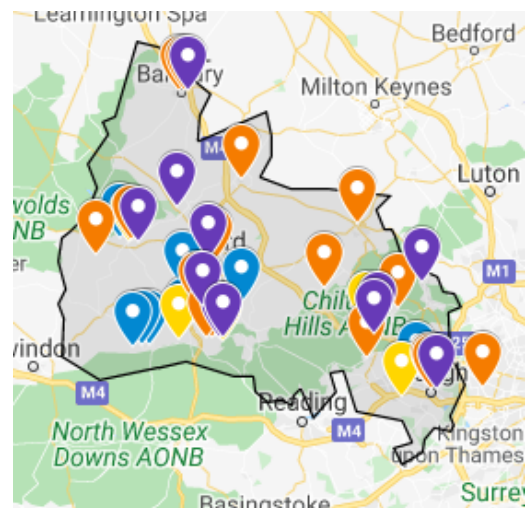
***The map opposite shows our workgroups for 2020 – 2021, and I am impressed at how resilient teachers are and our relentless ambition and desire to do our best for the students in our care.***

***I know may of you will have read the first part of the Education Endowment Report released in May 2021 and I have pasted the summary below.***

***We will be looking at some strategies to support all students during our Summer Conference on 25 June 2021. Please see the back page for more details on this. I hope you all have a great half-term and look forward to a more open summer term.***

***Abha Miller***

**Don't forget to [book your place](#) at the BBO Maths Hub Conference 2021 : 25 June 12pm—4pm**



key stage

## Key Stage 1

### EEF Summary

The first study finds that disadvantage gaps for primary maths have widened since Autumn 2019. Between Autumn 2019 and Autumn 2020, the gap in maths widened by between 10% and 24%. During the Autumn term there was no evidence that this gap narrowed. This seems to indicate that while disadvantaged pupils suffered disproportionate harms to learning during the first national lockdown, they have not received disproportionate improvements to learning after returning to school. The study did not detect and increase in the disadvantage gap for reading.

The study did not find associations between different school responses to remote learning and changes to the attainment gaps in English or maths (e.g. the use of live or recorded lessons, or frequency of work submission). In Autumn term there was some tentative evidence that providing live lessons to absent pupils was associated with reductions in the attainment gap.

## Recruitment Opportunities for 2021/22

### **Primary Mastery Specialist Programme 2021/22 Cohort 7**

Since 2014, the NCETM and Maths Hubs have been working together to develop approaches to teaching for mastery within primary mathematics. This has been informed by the teaching of maths in high performing South East Asian jurisdictions. The first year in post is a training and development year, either establishing or embedding mastery in their own schools, with the support of the senior leadership team. In the second year the training focus shifts to develop Mastery Specialists in their role of working with other schools. In the second and subsequent years, specialists will engage in a variety of work, including leading Work Groups, which support schools to develop, embed or sustain their approaches to teaching for mastery.

Following the successful first six cohorts of the Mastery Specialist Programme, the NCETM and Maths Hubs are now seeking to recruit a seventh cohort of expert primary school teachers to develop and work as Primary Mastery Specialists.

**The closing date for applications is 9am Friday 28 May 2021.**

More information can be found in the following document : [Primary Mastery Specialist Programme Cohort 7 Programme](#). To apply please go to the following page on the NCETM website : [Primary Mastery Specialists](#).

### **Primary Teaching for Mastery Development 2021-22**

In 2021/22, all Maths Hubs will be running primary maths Teaching for Mastery Development Work Groups led by Mastery Specialists. This programme is for schools who have a commitment to developing a teaching for mastery approach. Although the school's participation involves two teachers attending events outside of the school and online, it is expected that these two teachers lead development across the whole school. Each Maths Hub is now seeking to recruit schools for these Work Groups, each involving six or seven schools.

If you would like to know more about the Teaching for Mastery programme please visit <https://www.ncetm.org.uk/maths-hubs-projects/primary-teaching-for-mastery-development/>. If you are ready to apply for the programme then download the [information and application form](#) here.

## Sustaining Teaching for Maths Mastery

**Claire Shorrock Ph.D., NCETM Accredited PD Lead, LLME and Year 6 teacher**

**Ladygrove Park Primary School, Didcot, Oxfordshire**



This year, I have had the pleasure of participating in a series of six 'Sustaining TfM' workgroups through the BBO Maths Hub. Having previously attended a 'Developing' workgroup, I was interested to see where we would be progressing our maths teaching and learning to. The overall aim of our 'Sustaining' workgroup was to refine the work we have already done: to ensure that our school is using mastery approaches consistently and to support us to plan well designed lessons which allow all children to achieve and experience coherent learning. This year, this workgroup has run 'virtually' due to the current pandemic and this has happened at no cost to our learning and participation.

We started off with workgroups where we analysed what makes effective CPD: we looked at challenges and barriers to delivering CPD and reflected on our own experiences of leading or attending CPD. The impact of this was to support us to implement effective CPD back in our own school – thinking about how we can both formally and informally influence our colleagues. Implementation of a change can be described as a series of a stages, relating to thinking about, preparing for, delivering, and sustaining change.

During each of these workgroup sessions, in addition to enhancing our ability to lead CPD, our subject knowledge, related to multiplication and division has also been developed. This included a session on unitising – a key skill that we need to move children onto to help them be successful with multiplication strategies; children who automatically choose to unitise, versus those who count in 1s, are much better prepared to access multiplicative problems. Another session enhanced our understanding of fluency – with regards to not just the teaching of times-tables but to the pedagogy behind it as well – who knew that children learn times-tables in a different part of their brain to the number bonds?! This means that there is a need for children to chant their times-tables to aid them to recall. Fluency sessions (that focus on retrieval of addition and subtraction facts and of multiplicative facts) are vital in school to ensure that children know and can recall their key number facts and so avoid cognitive overload when applying their learning.

With the new subject and pedagogical knowledge gained via this workgroup, myself and my partner teacher have planned and led CPD sessions back at our school. The impact of this has been that teachers are more confident and knowledgeable when delivering fluency sessions and they are more aware of the importance of unitising. Participating in this workgroup has enabled me with skills I need to make CPD effective for teachers at school and feedback from the training sessions we have led has been incredibly positive.

We have two more workgroups left this academic year and I am excited to see where they take us. I would thoroughly recommend participation in a 'Sustaining TfM' workgroup once you have completed 'Embedding TfM' as a strategy ensuring your school continues to refine the procedures that it has in place for teaching maths.

## Primary Work Groups

Please note that due to Covid-19 and lockdown, all Work Groups will be run remotely until further notice in 2021. **All of our Work Groups are free.**

### Primary Open Event

**Would you like to hear more about the benefits of joining a Work Group?**

Come and join us online for an invaluable opportunity to find out more about the National Maths Hub programme and how engagement with the BBO Maths Hub can help you to develop excellence in mathematics teaching in your school Book now to secure your place!

Tuesday 11 June 9.30am—10.30am [Book here](#)

### Primary Sustaining Mastery—Headteachers' Work Shops

The BBO Maths Hub is offering an exciting opportunity for all Headteachers of schools in our Sustaining Mastery programme to join a Work Group led by Julie Hiddleston, Executive Headteacher, GLF Schools.

Headteachers are invited to join this Work Group where you will have the chance to work collaboratively with other Heads, exploring the challenges and opportunities that arise for leadership teams when implementing and then sustaining a mastery approach to teaching in school.

The workgroup will give Headteachers the opportunity to consider what is working well, share challenges and successes and to begin planning for a post-Covid return to school. Work group participants will have the opportunity to examine current research and guidance and how this can help to support staff with the development of the approach in your schools. Crucially, the Work Group will also explore how a sustained approach to developing mastery teaching in school can have a positive impact on narrowing the gap for the most disadvantaged children in our schools.

Tuesday 25 May 9.30am—12.00 noon [Book here](#)

Please book as soon as possible to secure your place.



## Recruitment Opportunities for 2021/22

### **Secondary Mastery Specialist Programme 2021/22 Cohort 6**

Since 2014, Maths Hubs and the NCETM have been working together to develop approaches to teaching for mastery. Teaching for mastery is a pedagogical approach which aims to develop a deep and connected understanding of maths for all learners, enabling them to enjoy maths and demonstrate high achievement (including in examinations), giving them a sound basis for future learning and preparing them for their future employment.

Following the success of the Secondary Mastery Specialist Programme thus far, Maths Hubs, working in conjunction with the NCETM, are now seeking applications from secondary schools that wish to nominate 'lead teachers' to take part in an important three-year professional development programme leading to the designation of Secondary Mastery Specialist. Schools nominating teachers for this role would be committed to the development of teaching for mastery in the lead teacher's classroom, across their mathematics department and, later on, to facilitate and support the development of teaching for mastery in a small number of other interested secondary schools within their Maths Hub area.

**The closing date for applications is 9am Friday 28 May 2021.**

More information can be found in the following document : [Secondary Mastery Specialist Programme Cohort 6 Programme](#). To apply please go to the following page on the NCETM website : [Secondary Mastery Specialists](#).

### **Secondary Teaching for Mastery Development 2021-22**

In 2021/22, all Maths Hubs are participating in a Network Collaborative Project addressing secondary mathematics teaching for mastery. As part of this project, Secondary Mastery Specialists in each hub area will be offering support to schools interested in developing teaching for mastery approaches in their maths departments. Each specialist who has completed the second year of their support and development programme will work with two departments. Maths Hubs are therefore now looking to recruit schools and their maths departments to participate in this exciting and innovative project as members of these Work Groups.

More information about secondary teaching for mastery Work Groups is available on the [NCETM website](#). If you are ready to apply for the programme then download the [information and application form](#) here .

## Recruitment Opportunities for 2021/22

### Career Opportunities : Secondary Teachers to Lead Work Groups

The Secondary Programme for Developing Mathematics Teaching and Teachers is expanding and we are therefore looking to recruit new Work Group Leads (WGL) for the Academic Year 2021 to 2022. If you have been teaching for a few years and feel ready to take the next step to develop your skills then this could be an opportunity for you. We are also looking for one lead who is experienced in developing Heads of Department (See NCP 21-15 below). We want good teachers who have experience of one of the areas we need leads for, this could be experience coaching or mentoring a fellow member of a department or it could be that you have taught this area of Mathematics for a while or you have lead on developing an area in your own department and would now like to develop this to work with teachers beyond your own team.

We would like our leads to do the NCETM Professional Development Lead Programme which helps you develop your skills to design and lead Continuous Professional Development (CPD) with other teachers but for some of the WGL's this could be completed the following year instead. Further information can be found on this link (<https://www.ncetm.org.uk/maths-hubs-projects/pd-lead-development-and-accreditation-programme/>) but please note that if completed while leading a work group this is basically just writing up what you do and attending a couple of training days. Time commitment over the academic year is 4 days and your school will get 4 x £200 = £800 for cover costs, travel to NCETM training can be claimed. Please note that you can do this without becoming a lead this year.

**Everything is fully funded** in terms of cover and travel costs to attend training days. All Work Group Leads attend NCETM training which provides training and resources to use when running sessions and also a chance to share best practice with other leads from around the country. You will also meet with a group of established leads in our hub area a couple of times a year to share best practice as well as having a Secondary Lead link who will always be there to support you as you develop your skills.

The following list shows the projects for which we currently need Work Group Leads. Please [go to our website](#) for full information about each prospect and to apply. If you would like more information then please contact the Maths Hub at [info@bbomathshub.org.uk](mailto:info@bbomathshub.org.uk).

#### **NCP21-15 Secondary Subject Leadership Work Groups**

The purpose of this project is to offer focused support to secondary heads of department/subject leaders, to enable them to better understand and implement teaching for mastery approaches across their department, and to develop in their role as leaders of both pupil learning and teacher professional development. Participants in their first year of this project will be part of Work Groups exploring common themes, with bespoke adjustments appropriate to local contexts and needs. There will be central workshops for Work Group Leads. In the second and subsequent years of engagement, participants are expected to continue their participation as part of a Maths Hub-led subject leadership community.

**NCP 21-23 Developing A level Pedagogy Work Groups**

This NCP provides national support for the effective development of pedagogy in the teaching of A level Mathematics to support Covid recovery, to enhance the quality of teaching and the conceptual understanding of students, and the development of participants as leaders of A level teaching professional development in their own school or college. This NCP and its Work Groups aim to develop and sustain local communities of practice involving collaboration between teachers in developing pedagogy in their teaching of A level Mathematics.

**NCP 21-29 Specialist Knowledge for the Teaching of Mathematics (Secondary Early Career Teachers) Communities**

This project is designed to support Early Career Teachers (teachers in their first two years of teaching) when designing effective learning and teaching in mathematics. It is expected that the local offer will select from one (or more if multiple NCPs are running) of the following themes : structure of the number system, operating on number, multiplicative reasoning, sequences and graphs, statistics and probability or geometry. The aim of this community is to work deeply on one area of maths, drawing in the associated pedagogy, and will include lesson analysis and lesson design. Other areas of maths could be supported in a second year to maintain the engagement/momentum of this group. It is expected that this work would be linked to the Early Career Framework so could be viewed as a two-year offer.

**NCP 21-30 Specialist Knowledge for Teaching Mathematics (Secondary Non-specialist Teachers) Programmes**

For the first time in 2021/22, Maths Hubs have the opportunity to provide a programme for secondary non-specialist teachers of mathematics that had previously been realised by the TSST programme. The programme will support non-specialist teachers in developing specialist knowledge for teaching maths, thus enabling them to understand, teach and support pupils in the maths classroom. The programme is aligned to the NCETM teaching for mastery pedagogy and is based on six key themes : Structure of the number system, Operating on number, Multiplicative reasoning, Sequences and graphs, Statistics and probability, Geometry.

**Level 3 Lead**

The purpose of this role is to provide oversight of Level 3 maths teaching developments across the Maths Hub's area, by leading, developing, and providing expertise for, this aspect of the hub's work. This will involve working with the Maths Hub Leadership team to plan how to address the Post-16 Institution Strategic Goal, liaising with AMSP, Centres for Excellence and other relevant programmes, identifying and recruiting teachers who would benefit from the Post 16 development opportunities and working with the Primary and Secondary leads to develop a close working community of teachers who are involved with developing the teaching of mathematics across our area.

We will be recruiting participants for these work groups and many more later this year so keep an eye out on the website and the next newsletter.

## How can you access free support for developing your Level 3 Pedagogy?

**Lesley Swarbrick, Level 3 Lead**



BBO is offering three Level 3 opportunities for 2021/2022. As usual we will be running our **Developing A level Pedagogy** and **Developing Core Maths Pedagogy** Work Groups. In addition, we are also offering the brand new **New to Teaching Core Maths Programme**.

The two **Work Groups** will consist of **five 1.5 hour online twilight sessions** from **November to Easter**.

### Why should I join the Developing A level Pedagogy Work Group?

The Work Group is run by its participants, led by an experienced A level teacher, Chris Kirkham from Larkmead School.

You come to the Work Group with questions and the desire to improve your A level teaching and your impact on your students' learning. You decide with the other participants in the group what topics you want to cover.



You will take the ideas from each session for your school-based work where you will practise techniques or strategies discussed, and then talk about the effectiveness of these at the next session. For example, the current group have looked at practical ways of teaching Mechanics, approaches to delivering Hypothesis Testing, and how to 'teach' problem solving.

What past participants have said about the Work Group *"Time to reflect and plan for future changes in curriculum delivery", "talking with like-minded people, and getting different ideas on teaching topics, or new ideas", "Developing understanding and linking between topics", "Taking a step back, and a holistic look at 'why and how am I teaching this' rather than just delivering the content"*.

### What will I gain from participating in the Developing Core Maths Pedagogy Work Group?

Often Core Maths teachers feel isolated because they are the only teacher of Core Maths in their school.

The Work Group is an ideal way for you to discuss approaches to teaching Core Maths with teachers from other institutions, and to pick up ideas, strategies, and resources, and to work collaboratively in order to share good practice. You would then disseminate what you have learnt to the rest of your department in order to increase everyone's skills base.

**Could you...**

... swim in 100 litres of water?





## How can you access free support for developing your Level 3 Pedagogy? (cont.)

Feedback from past participants about what they gained from the Work Group “*discussing different approaches and how to schedule topics over the teaching time, gives you a chance to focus on why and how to teach Core Maths*”, “*far more student led approach to this rather than my traditional style of teaching*”, “*I have learnt a lot through sharing lesson ideas, having discussions about what has and has not worked, in particular different ways to help students communicate ideas and increase discussion. Many of the shared resources have been interesting activities and have really helped engage students*”, “*How many amazing teachers there are in other schools! Just to be able, in a non-judgmental environment, to discuss ideas of how teaching could be done without having to worry about the implications in your own school*”, “*oh! I never thought of doing it like that.*”

## What is the third opportunity? Are you preparing to teach Core Maths in September?

Next year, we are offering for the first time the **New to Teaching Core Maths Programme**. This programme, which is more akin to standard sustained PD than to a Work Group, is aimed at those schools which are offering Core Maths to their students for the first time. The aim is to increase your confidence in teaching Core Maths.

### Could you...

... carry one kilometre of toilet paper without any help?



The 6 key areas are:

**Problem Solving , Fermi estimation**

**Critical Analysis, Finance,**

**Pre-release materials, and Statistics,** and there is a focus on the use of technology throughout.

Feedback from a participant at a Core Maths Work Group gives insight into why this course would be good for teachers unfamiliar with teaching Core Maths “*Teachers new to Core Maths were surprised at how different it is to GCSE and A level, and felt very enlightened and empowered to teach it themselves. It was helpful to find out what type of material was being taught.*”

**Our Work Groups and Programme will run online on Zoom as twilight sessions to make it easy for you to attend. Recruitment is opening soon.**

**If you are interested in participating in or in leading either of the Work Groups or the Programme please contact BBO Math Hub** [info@bbomathshub.org.uk](mailto:info@bbomathshub.org.uk)

## Events / Network Meetings

### NETWORK MEETINGS (IN ASSOCIATION WITH THE AMSP)

Tuesday 18th May at 4pm is the next **Slough and Windsor** meeting for secondary Maths teachers. The topic led by Jo Sibley is Fun with Proof - how understanding of proof can support students in KS5. To sign up <https://amsp.org.uk/events/details/8334>. More information from [nbasra@uptoncourtgrammar.org.uk](mailto:nbasra@uptoncourtgrammar.org.uk) or [yvonne.scott@amsp.org.uk](mailto:yvonne.scott@amsp.org.uk)

What's happening in June? (apart from the [BBO Conference](#) on 25 June of course!)

#### A selection of local online events:

Tuesday 15th June - CPD - Problem Solving for C Grade Students - <https://amsp.org.uk/events/details/8387>

Thursday 17th June - network meeting - Tom Button will be answering questions about using Desmos classroom activities as well as showing its features - <https://amsp.org.uk/events/details/8484>

Thursday 24th June - network meeting - Alexandra Hewitt will be talking about University Admissions Tests - <https://amsp.org.uk/events/details/8482>

Wednesday 30th June - CPD - Topics from Year 13 Compulsory Further Pure - Series, Complex Numbers, and Polar Coordinates - <https://amsp.org.uk/events/details/7249>



## The NCETM PD Lead Development and Accreditation Programme

The aim of the NCETM and the Maths Hubs Network is to provide opportunities for all practitioners of mathematics to benefit from high quality collaborative professional development (PD). This requires that there are enough people with the skills and capacity to lead, facilitate and support the professional development of others, both within and across settings.

The NCETM PD Lead Development and Accreditation Programme (PDLdap) is designed specifically to address this need. This is part of the Maths Hubs Network's strategy to build up a group of Professional Development (PD) Leads who can support the work of local Maths Hubs.

**The closing date for applications is 9am Friday 28 May 2021.**

More information can be found in the following document : [PD Lead Development and Accreditation Programme](#).

To apply please go to the following page on the NCETM website : [PD Lead Programme](#).

## BBO Maths Hub Conference 2021 : 25 June 12pm—4pm

After a very unusual year we are taking the chance to look ahead and think about the future and we hope that you will find the sessions we have on offer fulfil this vision. Our Key Note Speaker this year is Anne Watson who will be looking at 'Creativity in and with Mathematics' and we also have Dr Debbie Morgan who will be looking at 'Moving forward from the pandemic'.

To add to this we have a wide range of experienced speakers who will be speaking on the broad range of topics listed below :

- Mathematical Oracy
- Choosing representations to reveal mathematical structure
- A Journey to Fact Fluency
- How the principles of Mastery can support all learners
- Students with Maths Anxiety – how can teachers help? Building Resilience.
- Purpose of Assessment
- Using the NCETM Secondary Professional Development materials to develop collaborative planning
- Where can I go to get help with my Core Maths teaching?
- How can I develop the impact of my A level teaching on my students' learning?

Attendance is open to any maths teacher who is teaching in the BBO Hub area and is not in the private sector.

[Book here](#) to secure your place at this virtual event. We look forward to seeing you on the **25th June**.