

BBO MATHS HUB NEWSLETTER

Term: Spring | Issue 5 | Date: 17 March 2022

NEWS FROM THE BBO MATHS HUB TEAM

I hope you are all doing well and keeping sane in these troubled times. I know there are so many other school priorities now, but I just wanted to take the time highlight the excellent speakers at our next conference , Enhancing Your Curriculum, with the emphasis that it is very much your curriculum. We are so lucky to have so many experts available to us, who can make sense of the research both national and international . So, if you do not have the time to read the full report by PISA on International Standards of Reading, Mathematics and Science , Publications - PISA (oecd.org), you may be interested in listening to Anne Watson's podcast on the topic . PISA and England by PISA 2022 and England (anchor.fm).



Please enjoy your Easter and stay safe

Abha Miller

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BOOKINGS OPEN FOR BBO MATHS HUB CONFERENCE 2022 - APRIL 28 9am - 4pm

**BBO Maths Hub
Conference - Enhancing
Your Curriculum
28 April 2022**



**Gareth Metcalfe
I See Maths**



**Debbie Morgan
NCETM**



**Dr Ems Lord
NRICH**



**Rebecca Donladson
NCETM**



**Tony Cotton
ATM**



**Gaynor Bahan
NCETM**



**Jean Knapp
Primary Specialist**



**Mary Briggs
Oxford Brookes**

BOOK NOW

BOOKINGS OPEN FOR BBO MATHS HUB CONFERENCE 2022 - APRIL 28 9am - 4pm

The theme of this year's conference is "Enhancing your Curriculum". We have arranged a wealth of speakers from different backgrounds and organisations covering all key stages. The conference is open to any teacher working in a state school in our area and is totally free to attend.

We are delighted to announce that bookings for the conference are NOW OPEN. To secure your place and select the speakers you'd like to hear, click here to go to the event registration page.

Please see below for the timetable of the day and the speakers we have confirmed with some information about the topic they will be presenting.

Theme : Enhancing Your Curriculum

Date : 28/4/22

Time : 9 am to 4 pm

Venue : Online



9.00 to 9.30	Intro and welcome
9.30 to 11	Key note speaker - Gareth Metcalfe
11 to 11.20	Break
11.20 to 12.20	Break out session 1
12.30 to 1.30	Break out session 2
13.30 to 2.15	Lunch
2.15 to 3.15	Break out session 3
3.25 to 4.00	Wrap up

Key Note Speaker : Gareth Metcalfe from I See Maths -

'Building Children as Mathematical Problem-Solvers'

This session will explore how to give all children success in problem-solving. We will see how to direct thinking on the structure of different questions, moving the focus from finding answers to understanding the process of problem-solving. We will look at how to introduce tasks so children have initial success, then gradually increase the challenge. Then, we will see how children can make connections between different tasks. A practical, thought-provoking session!



Gareth Metcalfe, the Director of *I See Maths*, provides training and resources that help primary school children to build a deep, conceptual understanding of mathematics. Gareth is the author of the *I See Reasoning* and *I See Problem-Solving* resources, helping schools to put reasoning and problem-solving at the heart of the maths curriculum. Gareth is an NCETM CPD Standard Holder, he leads maths CPD nationally and he is a current practitioner, teaching in a range of schools across the age-range.

Break out Sessions - You will be able to choose three sessions, one from each of the slots:

Session 1 - 11.20 - 12.20

Gaynor Bahan and Rebeca Donaldson from NCETM - NCETM Checkpoints : Supporting Understanding at KS3

(Suitable for KS2 and KS3)

In this session, we'll explore what Checkpoints are and how they can be used to support secondary teachers with their own horizon knowledge, whilst diagnosing the learning that pupils bring with them from KS2. We'll reflect on how they might be incorporated into curriculum plans and learning, way beyond Covid recovery!

BOOK NOW

BOOKINGS OPEN FOR BBO MATHS HUB CONFERENCE 2022 - APRIL 28 9am - 4pm

Dr Debbie Morgan CBE: Primary Director NCETM – It ain't what you do, it's the way that you do it

A National Curriculum means that the content of the curriculum is the same for all schools. However there are several things that influence the effectiveness of the curriculum. This session will consider the things that make a real difference, which are evidenced by research and practice.

Jo Walker from BBO Maths Hub – Developing Mastery at KS5

In this session we will look at applying the mastery pedagogy in KS5 and discuss how this can be planned for to create a deep understanding of the concepts covered.

Mary Briggs from Oxford Brookes University - 'Space the Final Frontier'

An opportunity to explore and discuss how spatial reasoning is developed in the early years.

Session 2 - 12.30 - 1.30

Jean Knapp – Maths Games to Support Number Sense

Aims of the session:

Identify a collection of Maths games to support Number Sense.

To explore the power of repetition and retrieval in a Maths Game.

To identify questioning, recording and extension opportunities from a Maths game.

There has been much research into the benefits of using Maths Games to develop Number Sense and Calculation to great effect. Higher level thinking skills, motivation, engagement, and confidence are also cited as some of the key benefits. This session aims to look at a collection of maths games to support number sense, possible extensions and supports to maximise learning impact.

Dr Ems Lord Director of NRICH – Enhancing your Secondary Maths Curriculum with NRICH

Aims of the session:

During this session, we will explore how NRICH's secondary resources enable teachers to support their students to think mathematically and develop the key skills needed to thrive both within and beyond the mathematics classroom. Due to the pandemic, too many students missed out on opportunities to develop their mathematical resilience, team work and problem-solving skills. Even if you think you know NRICH already, this session will enable you to maximise its resources, events and Live Problems with your students.

Tony Cotton author and member of ATM - 'Social Justice in Mathematics'

Tony will reflect on the impact of historical and contemporary notions of social justice on his teaching in schools and universities, exploring what we might mean by the term 'social justice' and offering activities and pedagogical practices which might be argued to be 'socially just'. You will also get to do some mathematics!

BOOK NOW

Session 3 - 2.15 - 3.15

Julie White-Zamler and Andrea Wickham – Developing a Secondary Maths Department

This session will focus on looking at how subject leaders with a range of leadership experience develop their skills at leading professional development in their departments that will have impact on the quality of learning and the student experience in their departments. It will also focus on strategic leadership and ensure that our members consider how they can turn a dream/vision for their department into a reality and crucially how they can ensure they bring their team with them along the way.

Dr Ems Lord Director of NRICH – Enhancing your Primary Maths Curriculum with NRICH

Aims of the session:

During this session, we will explore how NRICH's primary resources enable teachers to support their students to think mathematically and develop key skills such as teamwork, resilience and working flexibly to solve unfamiliar problems. Due to the pandemic, too many primary pupils missed out on opportunities to develop those key skills, but NRICH resources offer engaging activities and support materials ideal for helping to address the gaps in their learning. Even if you think you know NRICH already, this session will enable you to maximise its resources, events and Live Problems with your pupils.

Kelly de Santis and Ally Johns from GLF Schools – Leading Maths in Primary Schools

This session will give an opportunity for Maths Leads to explore and reflect on four key areas within their own schools:

- Mathematics curriculum and assessment
- Mathematics pedagogy
- Mathematics professional learning
- School mathematics culture

As well as this, the session will look at resources that can support leads in the implementation of their maths curriculum and how to measure the impact of this. The session will also touch on recent OFSTED deep dive experiences.

Kristin Coldwell from AMSP - Encouraging Uptake of Mathematics Post 16 during KS4

Making Mathematicians

All students have the capacity to be mathematicians, but not all of them see themselves as mathematicians. As teachers, we can't make them love maths or even make up their mind to keep studying it post-GCSE. But we can help them to see what makes mathematics and what makes them mathematicians: the processes of solving problems, proving things and modelling the real world mathematically. This session will explore general approaches and specific activities that will help students see themselves as mathematicians with an appropriate post-16 pathway ahead of them (A level Maths, Further Maths or Core Maths).

Let's Talk About Fractions

SECONDARY

Lucy Dasgupta Secondary Mastery Specialist, John Mason School, Abingdon

I have been working with my year 7 class on fractions this term. I have had some interesting conversations with them and with colleagues that has highlighted for me the importance of the need to take care over my choice of language, to really hear the students' use of language and to make sure that those do not store up trouble for later!

'Big ideas' of mathematical literacy, variation theory, representations and mathematical thinking all featured in the sequence of lessons but I am going to focus on the use of language.

In the beginning...

If you are going to steal a resource, why not steal it from an exemplary lesson shared at a national mastery specialist event? The variety of representations of five sixths in this image had us discussing that "a whole" could be one object or a collection of objects. The students remembered 'numerator' and 'denominator' but for many "number of parts" needed improving to "number of equal parts". Emphasising 'parts' really helped with the number lines, which they found most challenging. Prompts to count the number of parts (into which the line had been divided) meant they were able to catch themselves counting the lines in error and peer or self correct.

Which diagram shows $\frac{5}{6}$ of the whole is shaded?

What does $\frac{1}{5}$ mean?
In your answer, include both

- What words do you use to say $\frac{1}{5}$, and
- What does it mean?

Which of the pictures does not show $\frac{1}{5}$ of the figure shaded?

Can you 'Say it again better?'

We took time to rehearse how to say fractions. I did my best to never let a "two over three" or a "two three" slip by without asking the student to 'say it again better' until a slight pause was enough to prompt them to re phrase. We read, said and wrote fractions in words and I tried not to speak for them. My goal was to cement in their minds the difference between thirds and 3. When we began to compare fractions the numerical value of the denominator crept back in.

How do we say fractions?

2

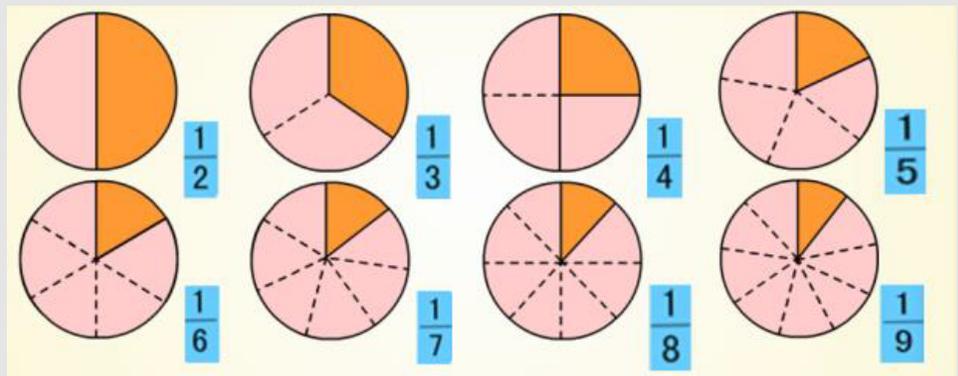
—

3

There are special names if the denominator is 2,3 or 4

Otherwise the denominators end with 'ths', e.g. four sevenths

Insisting they said "ninths" and "sevenths" along with the image on the right gave them the language to reason that ninths were smaller than sevenths and so two ninths must be less than two sevenths.



Let's Talk About Fractions (cont.)

SECONDARY

Lucy Dasgupta Secondary Mastery Specialist, John Mason School, Abingdon

Reflecting on the lessons led me to a more general observation. Choosing to focus on language gave me the added incentive to ask open questions that revealed the students' choice of language. It me really listen to what they said and led to this gem...considering the size of two fractions one student argued that two ninths was less than two sevenths "because it is sort of more diluted".

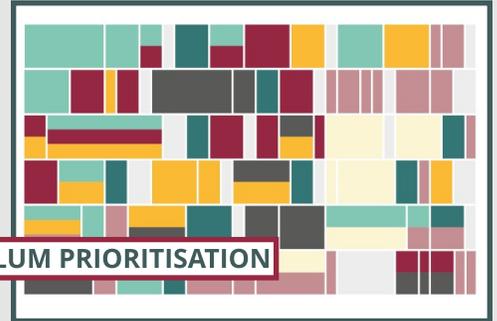
I'm still thinking about "2 out of 3". It helps attach the fraction to a proportion. Of course the 3 is what leads to the thirds but perhaps if I keep prompting the translation to thirds instead of leaving them saying "over 3" or "out of three", when we come to add and subtract fractions they won't try to add the number 3 to another denominator. Something else to talk about...

- | | |
|--------------------------------------|--------------------------------------|
| 1) $\frac{2}{9}$ ○ $\frac{2}{7}$ | 2) $\frac{9}{28}$ ○ $\frac{6}{28}$ |
| 3) $\frac{7}{16}$ ○ $\frac{3}{16}$ | 4) $\frac{3}{3}$ ○ 3 |
| 5) $\frac{8}{5}$ ○ $\frac{8}{8}$ | 6) $\frac{15}{15}$ ○ $\frac{14}{14}$ |
| 7) $\frac{23}{47}$ ○ $\frac{23}{16}$ | 8) $\frac{3}{6}$ ○ $\frac{2}{7}$ |

NCETM RESOURCES - PRIMARY AND SECONDARY



SUPPORT FOR PRIMARY TEACHERS



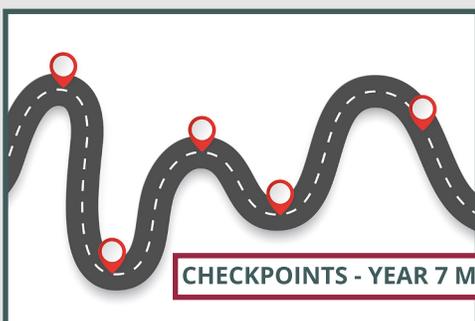
PRIMARY CURRICULUM PRIORITISATION



SUPPORT FOR SECONDARY TEACHERS



KS3 KEY IDEAS EXEMPLIFIED



CHECKPOINTS - YEAR 7 MATHS ACTIVITIES

SECONDARY & POST 16 CPD OVERVIEW

What is your departmental development focus?	What professional development opportunities are available? (Face-to-face and online collaboration with other teachers and experts)	What is the professional development suitable for?	What supporting resources are available? (Highly available high quality materials from the NCETM)
Supporting the primary transition	<p>Supporting the primary transition</p> <p>Primary to Secondary Transition</p> <p>Primary to Secondary Transition</p> <p>Primary to Secondary Transition</p>	<p>Anyone who teaches Year 7 maths including those of appointed schools</p> <p>Anyone who teaches Year 7 maths including those of appointed schools</p>	<p>Primary to Secondary Transition</p> <p>Primary to Secondary Transition</p> <p>Primary to Secondary Transition</p>
Developing teaching for mastery	<p>Developing teaching for mastery</p> <p>Developing Teaching for Mastery</p> <p>Developing Teaching for Mastery</p> <p>Developing Teaching for Mastery</p>	<p>Anyone who teaches Year 7 maths including those of appointed schools</p> <p>Anyone who teaches Year 7 maths including those of appointed schools</p>	<p>Developing Teaching for Mastery</p> <p>Developing Teaching for Mastery</p> <p>Developing Teaching for Mastery</p>
Developing the skills of the teaching team	<p>Developing the skills of the teaching team</p> <p>Developing the Skills of the Teaching Team</p> <p>Developing the Skills of the Teaching Team</p> <p>Developing the Skills of the Teaching Team</p>	<p>Anyone who teaches Year 7 maths including those of appointed schools</p> <p>Anyone who teaches Year 7 maths including those of appointed schools</p>	<p>Developing the Skills of the Teaching Team</p> <p>Developing the Skills of the Teaching Team</p> <p>Developing the Skills of the Teaching Team</p>
Planning an ECF	<p>Planning an ECF</p> <p>Planning an ECF</p> <p>Planning an ECF</p> <p>Planning an ECF</p>	<p>Anyone who teaches Year 7 maths including those of appointed schools</p> <p>Anyone who teaches Year 7 maths including those of appointed schools</p>	<p>Planning an ECF</p> <p>Planning an ECF</p> <p>Planning an ECF</p>
Supporting the school improvement process	<p>Supporting the school improvement process</p> <p>Supporting the School Improvement Process</p> <p>Supporting the School Improvement Process</p> <p>Supporting the School Improvement Process</p>	<p>Anyone who teaches Year 7 maths including those of appointed schools</p> <p>Anyone who teaches Year 7 maths including those of appointed schools</p>	<p>Supporting the School Improvement Process</p> <p>Supporting the School Improvement Process</p> <p>Supporting the School Improvement Process</p>
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Primary Work Groups and Opportunities for 2022/23

PRIMARY

The Maths Hub Programme has PD opportunities for all teachers at all stages in their careers and across all phases. With all of our programmes for 2021/22 underway, we are now looking ahead to the next academic year and are pleased to announce that applications have now opened for some of our projects running in 2022/23. Follow the 'More Info' links for further details on the opportunities and how to apply on our website, or contact info@bbomathshub.org.uk to discuss the best programme for you and your department.

All of our Work Groups are free.

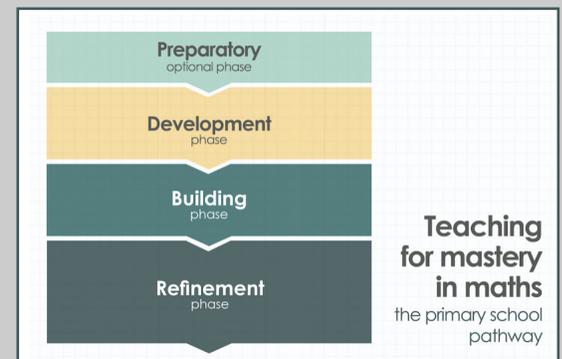
Primary Teaching for Mastery - Development

The Teaching for Mastery Programme is a professional development opportunity designed to support teachers like you to develop best practice in maths in your school. It is suitable for schools interested in implementing a teaching for mastery approach to maths.

Participation in a Development Work Group enables a school to start teaching for mastery in maths across the school. Work Groups are fully funded so there is no cost for participation. Thousands of primary schools in England have already become part of this popular programme

Participants will:

- Join a small group with other teachers from your local area
- Receive expert input from a Mastery Specialist
- Meet regularly, either online or face-to-face
- Share best practice and explore ideas with peer-to-peer support
- Receive bespoke support from the Mastery Specialist
- Lay foundations for the long-term development in teaching for mastery in maths in your school



MORE INFO

Primary Mastery Specialist Programme

Mastery Specialists are classroom practitioners who develop expertise in the mastery approach to teaching maths. Through rigorous and interactive training, they become experts in introducing and embedding mastery. After first developing a mastery approach in their own classrooms, they go on to support colleagues in their own and other schools.

The Mastery Specialist Programme for primary teachers started in 2015/16. Each year around 140 primary teachers – four from each Maths Hub – complete a programme of professional development to become Mastery Specialists. In every subsequent year, each of these teachers leads a Teaching for Mastery Work Group. This involves working with participant teachers from six or seven primary schools within their Maths Hub area, so that these schools can start to introduce teaching for mastery themselves.

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

The deadline for applications is 20.05.22.



MORE INFO

Cross-Curricular PD Opportunities for 2022/23

PRIMARY

SECONDARY

The Maths Hub Programme has PD opportunities for all teachers at all stages in their careers and across all phases. We are now looking ahead to the next academic year and are pleased to announce that applications have now opened via the NCETM for our PD projects for 2022/23. Follow the 'More Info' links for further details on the opportunities and how to apply on the NCETM website, or contact info@bbomathshub.org.uk to discuss the best programme for you and your department.

All of our Work Groups are free.

PD Lead Development and Accreditation Programme

NCETM Professional Development Lead Accreditation is designed for those who lead professional development for teachers of maths and who have existing commitments and responsibility for designing, leading and evaluating maths teacher professional development, and the potential to develop further.

Participants will:

- Develop knowledge of models of CPD for maths teachers
- Consider the themes and issues in teaching maths, and the implications of these in supporting other teachers
- Design a professional development programme, deliver it, and evaluate it
- Develop relationships with senior leaders to support a sustainable culture of maths CPD
- Increase their own subject knowledge and professional practice.

Participants will also have the opportunity to pay to work with the University of Chester and gain an academic award (PG Cert) for completing an enhanced version of the programme.

The deadline for applications is 20.05.22.

[MORE INFO](#)

School Development Lead Programme

This project is for teachers **leading change in a school or group of schools other than their own**, and will benefit those who have previous experience of developing leadership capacity in schools/groups of schools or who are new to the role.

Participants will:

- support schools, groups of schools or MATs to establish sustainable cross-school approaches to collaboration and development for maths teaching
- start to use collaborative Work Group models as one of their school development strategies
- incorporate new processes and models into their school development practice
- evaluate and review the effectiveness of specific maths school development models
- develop skills in driving improvement in maths, including developing the capacity of school leadership of maths
- know and understand of the challenges and barriers to school development in maths and how to tackle them
- know and understand effective approaches to teaching maths, including teaching for mastery.

The deadline for applications is 20.05.22.

[MORE INFO](#)

Secondary Work Groups

The Maths Hub Programme has PD opportunities for all teachers at all stages in their careers and across all phases. There are a few secondary projects still to start this year which are detailed below. We are also looking ahead to the next academic year and are pleased to announce that applications have now opened for some of our projects for 2022/23. Follow the 'More Info' links for further details on the opportunities and how to apply on the NCETM website, or contact info@bbomathshub.org.uk to discuss the best programme for you and your department.

All of our Work Groups are free.

Years 5-8 Continuity

Work Groups in this project aim to strengthen the transition from primary to secondary school by focusing on curriculum and pedagogical continuity over Years 5 to 8. Following the disruption to education caused by the Covid crisis, this transition is more crucial than ever.

A central aim is the promotion of cross phase communication between teachers to address issues of maths curriculum and pedagogical transition as distinct from pastoral considerations. A key feature will be understanding how best to prioritise key aspects of the curriculum to help ensure pupils have mastered the fundamental understanding and skills they need to underpin their progression through upper Key Stage 2 and into Key Stage 3.

Participants should be teachers of Years 5 to 8 in primary, secondary, middle school and all-through schools with some responsibility for curriculum development, e.g. maths leads / heads of department.

Linked 'families' of schools are encouraged to take part: ideally teachers from secondary schools and their associated primary schools will work together.

The BBO Hub is running a **final cohort of this group starting on 30 June** and we are looking for secondary schools to join the primary schools already registered to take part.

What are the benefits?

- Deepen your knowledge and understanding of the curriculum across KS2 and KS3 and the expectations of pupils at the end of each key stage.
- Understand the approaches which will support pupils as they move from KS2 to KS3.
- Make use of common approaches, representations and language across phases.
- Develop collaboration between primary and secondary colleagues on issues of curriculum and pedagogy.
- Understand what each year group needs to be ready to progress.
- Consider the importance of, and how to achieve, consistent mathematical vocabulary.
- Consider, for primary teachers, the conceptual knowledge that will serve pupils well later on.
- Explore how to prioritise the maths curriculum in upper KS2 and KS3 to get pupils' maths education back on track.



Participation involves cross-phase communication between teachers, and a key feature will be understanding how best to prioritise key aspects of the curriculum to ensure pupils have mastered the fundamental understanding and skills they need to progress successfully through upper KS2 and into KS3.

[MORE INFO](#)

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Secondary Mastery Specialist Programme

Mastery Specialists are classroom practitioners who develop expertise in the mastery approach to teaching maths. Through rigorous and interactive training, they become experts in introducing and embedding mastery. After first developing a mastery approach in their own classrooms, they go on to support colleagues in their own and other schools.

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.



The deadline for applications is 20.05.22.

[MORE INFO](#)

Specialist Knowledge for Teaching Mathematics – Non Specialists - Cohort 2

Are you teaching maths outside your own specialism? Or is someone in your maths department a non-maths specialist? Of course, there's much more to teaching maths than knowing how to do the maths. And it's not always obvious how teaching skills from other subjects can be adapted for the maths classroom.

Develop mathematical subject knowledge and understand the pedagogy that underpins the teaching of it

If you are a headteacher or senior leader, and want to know more about the programme and its suitability for teachers in your school, watch this video.

Who can take part?

This programme is for non-specialist teachers of maths in state-funded schools who fit the following definition:

"A non-specialist teacher of mathematics is a teacher in a state-funded school or college that is currently teaching some mathematics or has commitment from a headteacher/executive head to teach some mathematics within the next year, who has not undertaken Initial Teacher Training (ITT) in mathematics."

What is involved?

The programme is aligned to the NCETM teaching for mastery pedagogy and is based on six key themes:

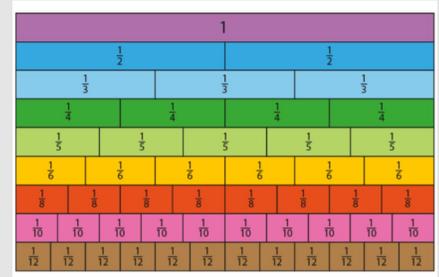
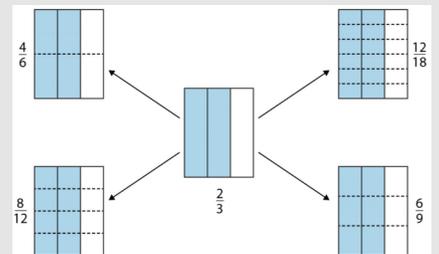
- Structure of the number system
- Operating on number
- Multiplicative reasoning
- Sequences and graphs
- Statistics and probability
- Geometry.

Participants will explore these themes, supported by an experienced secondary practitioner.

The NCETM have produced a flyer which summarises the programme and its benefits. Download it to share with colleagues.

Take part in the Work group

The second cohort is getting underway on **6 June** and will continue into the next academic year. There will be a blended mix of online and face to face meetings, the latter to be held at Cheney School in Headington, Oxford (OX3 7QH). For full details and to secure your place, click on the Book Now button.



[MORE INFO](#)

[BOOK NOW](#)

Secondary Teaching for Mastery - Development

Secondary maths teachers whose schools want to introduce and embed teaching for mastery can nominate two teachers (Mastery Advocates) to join a Work Group. You will be part of a locally-based group of teachers who meet regularly to develop professional knowledge and expertise, as well as receiving bespoke support.

In a Teaching for Mastery Work Group you will:

- collaborate with colleagues from other local schools to share best practice
- get individual school support and guidance from a local leader of maths education (LLME)
- take away ideas to help your students become more confident mathematicians, ready to tackle GCSEs and A levels
- introduce and embed teaching for mastery in your classroom and department



Teaching for mastery in maths
secondary school pathways

[MORE INFO](#)

Post-16 Work Groups

The Maths Hub Programme has PD opportunities for all teachers at all stages in their careers and across all phases. Below is a summary of the FREE development opportunities that are still available for post-16 teachers in 2021/22. Follow the links for further details on the NCETM website or contact info@bbomathshub.org.uk to discuss the best programme for you and your department.

All of our Work Groups are free.

Developing Core Maths Pedagogy

Core Maths - Why offer Core Maths and an opportunity to join our Core Maths Work Group

Is Core Maths part of your school or college's KS5 offer to enable students to continue studying maths at KS5 and to support your students' maths in other subjects?

Studying Core Maths can help students develop their quantitative and problem-solving skills. One of our students said:

"Taking Core Maths as an option at post-16 was really useful in facilitating my mathematical understanding of my other subjects such as Psychology and Biology. I'm very glad that I took Core Maths in year 12 and I believe it has given me transferable skills that I can use in everyday life such as knowledge about taxes, budgeting and statistical analysis. These skills will not only be useful for university but also for general life after post-16. I would strongly recommend the course!"

If you currently teach Core Maths, join our network of local teachers collaborating in our Developing Core Maths Pedagogy Work Group from across our region. This is a jointly funded programme by the Maths Hub Programmes and the AMSP and is free to participating schools & colleges. For more information about the Work Group or about starting a Core Maths opportunity in your school please contact our Post-16 Lead Sarah Gilbert at sarahgilbert380@gmail.com.

As part of the Core Maths Work Group you will:

- Collaborate with other Core Maths teachers and explore strategies to develop students' problem solving skills
- Consider ways of improving student outcomes and participation in Core Maths.
- Explore Core Maths pedagogy & share approaches to the planning and delivery of the Core Maths curriculum
- Focus on contextualised problem-solving and data analysis.

There will 5 sessions, all of which are twilight online meetings between 4:30 - 6pm. The current dates are:

- 31st March
- 27th April
- 11th May
- 8th June
- 29th June

For more information on the programme from the NCETM or to sign up to the Work Group via our website, please use the buttons below.

Read on for more advice on why your school should be offering Core Maths.



CORE
MATHS

[MORE INFO](#)

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Developing Core Maths Pedagogy

Why should your school be offering Core Maths? Why do your students need to study Core Maths?

Lesley Swarbrick has collated some useful responses to these questions; there are some excellent materials on the AMSP website which answer both of these questions. There are taster videos and desmos activities on Finance (essential life skills) and Fermi Estimation (quick calculations) which are part of the Core Maths course irrespective of which specification you choose. Have a look at the level 3 taster lessons.

Examples of Fermi Estimation

How much domestic water does a house use per week?

How much pizza dough does a restaurant use each day?

How much land is needed for a music festival?

How many students live within a 1 mile radius of a possible cinema location?

How much do I need to budget for food each week?



All students post 16 should have the opportunity to study Maths beyond GCSE. A broad range of A level and vocational courses require the maths skills that Core Maths helps to develop, including:

- Biology and Environmental Science
- Business and Economics
- Geography
- Health and Social Care
- Psychology
- Sociology
- Sports Science and PE

Indeed, for some University courses, students need to do an Admissions Test, which will have mathematical content, and if students haven't studied any Maths post 16 then they could be at a disadvantage.

PODCAST

CORE MATHS FIVE YEARS ON

What does the course offer post-16 students that don't do Maths A level, and how can schools/colleges offer it?

THE NCETM MATHS PODCAST

Episode 42

This podcast by the NCETM is really inspiring, and clearly explains the differences between teaching Core Maths and other Level 3 Maths courses. It features Jack Ndebu, who was a new teacher of Core Maths at the time of the podcast and would be a useful listen.

Core Maths is an excellent opportunity for students to continue studying Maths at KS5.

Other Events and Opportunities

NETWORK MEETINGS (IN ASSOCIATION WITH THE AMSP)

Year 10 Maths Feasts Happening in Your Area In March

Friday 25th March - **Y10 Maths Feast (Student enrichment)** @Langley Grammar 9am - 1pm

Give your Y10 students the chance to feast on some Maths puzzles.

To book your free place go to: : <https://amsp.org.uk/events/details/9283>

Surrey, Berks and Hants Online Teacher Network

Thursday 30th March - 4:30 - 6pm - **Fun with Proof**

How an understanding of proof can support students in KS5.

To book your free place go to: <https://amsp.org.uk/events/details/9558>

Oxfordshire and Buckinghamshire Online Network

Tuesday 26th April - 4:30 - 6pm - **Raising Girls' Participation at Level 3**

In this session, we will share ideas to help you encourage girls to consider taking maths beyond GCSE. Although the material is specifically pitched at girls, the ideas would be appropriate for all genders.

For more details and to register for a place please see: <https://amsp.org.uk/events/details/9369>

Tuesday 21st June - 4:30 - 6pm - **Building in Problem-Solving - Making Transition Easier**

In this session, will talk about how to build in problem solving at KS3 and KS4 in order to ease transition.

For more details and to register for a place please see: <https://amsp.org.uk/events/details/9520>

SUMS (Steps to University for Mathematical Students) enrichment days

This one-day event is for enthusiastic Year 12 female maths students who are considering studying maths or a closely-related subject at university. (Non-binary and trans students are most welcome.) We are hosting this event at different universities on different dates.

Please select the most appropriate venue (see <https://amsp.org.uk/events/details/9596>).

