

SECONDARY MATHS TEACHER CONFERENCE

After such a challenging year, the **Great North Maths Hub** would like to invite **you** to a virtual event, free to attend, for our regions maths teachers.

KEYNOTES

TUE
29TH
JUNE

CRAIG BARTON

Making the most of worked examples

WED
30TH
JUNE

DR THOMAS HUNT

Mathematics Anxiety: Some insights & Considerations

THU
1ST
JULY

ALISON HOPPER

'We've never done this before!'
Avoid pupils being Lost In Transition

Plus workshops and prizes each day to Inspire, Support and Enthuse.

ATTEND FOR 1, 2 OR 3 DAYS.

BOOK YOUR TICKET:

<https://greatnorth2021conference.eventbrite.co.uk/>



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Details of each days **keynote speakers** are below, and workshops are shown on page 3

	Keynote Speaker	Outline	Biography
29th June 2021	Craig Barton Making the most of worked examples	How can we model new ideas, methods and concepts to our students effectively? In this keynote Criag will outline the 5 stage process he uses for worked examples. He will also reflect on what he has learned about this process during the last 12 months of remote learning.	Craig Barton loves teaching, doing, speaking and thinking about mathematics. He taught maths in secondary schools for 15 years, and was TES Maths Adviser for 10 years. He is now the Head of Education at Eedi. Craig is also the author of the best-selling books "How I wish I'd taught maths" and "Reflect, Expect, Check, Explain", the host of the Mr Barton Maths Podcast, and the creator of numerous websites, including mrbartonmaths.com, diagnosticquestions.com, variationtheory.com, ssddproblems.com, dqaday.com and mathsvenns.com. In 2020 he was appointed as Visiting Fellow at the Mathematics Education Centre at the University of Loughborough.
30th June 2021	Dr Thomas Hunt Mathematics Anxiety: Some insights and considerations	Dr Hunt will introduce the concept of maths anxiety, along with the ways in which this relates to a range of psychological and behavioural factors. He will focus on trends concerning sex differences in maths anxiety, considering evidence for and against such differences along with suggestions for why differences might exist. Finally, he will touch upon the relevance of sex differences in maths anxiety in the context of proposed interventions.	Thomas Hunt is an Associate Professor in Psychology and leads the Mathematics Anxiety Research Group at the University of Derby. His work is interdisciplinary and largely focuses on understanding causes and effects of maths anxiety, involving the study of mathematical cognition, attentional processes, and a wide range of individual differences. Hunt has been involved in the development of several tools to measure maths anxiety in addition to designing and testing strategies to reduce it. His recent work involves collaborating with researchers across a range of countries to understand socio-cognitive-affective barriers to maths education from a global perspective. He is particularly interested in addressing such barriers in developing nations, which relates to the United Nations sustainable development goals associated with ensuring high quality maths education, gender equality and inclusivity.
1st July 2021	Alison Hopper 'We've never done this before!' - how to avoid pupils being 'Lost in Transition' from KS2 to 3.	What leads to pupils not recognising maths that they really do know and understand? We will consider aspects of curriculum and pedagogy where missed opportunities for continuity and collaboration can lead to pupils to claim, 'We've never done this before!'. We will do some maths and consider how a change in context, representation and language can contribute to this and look at some findings from the Year 5-8 Continuity NCP which seeks to avoid pupils being 'Lost in Transition'.	Alison has been involved in primary education in various roles for around 20 years. As a class teacher and senior teacher, she led maths, assessment and music in a number of schools. For many years, she was a Primary Strategy Mathematics Consultant in Surrey and also spent two years lecturing at The University of Brighton on their ITT courses in maths. The combination of these roles allowed her to explore how children learn and how teachers teach from many perspectives. In her role as Primary Maths Specialist for MEI, her particular focus is on Key Stage 2 to 3 transition and she also works as an associate with the NCETM on programmes supporting teaching for mastery.

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**TUE
29TH
JUNE**

Representation and Structure: Introduction to Algebra Tiles (KS3 & 4)

Manipulatives and representations can be valuable in developing understanding of mathematical structures at secondary level for all students. The session will outline what algebra tiles are, why they are important and how they can be used in the classroom.

Coherence: One of the five big ideas of teaching for mastery (KS3 & 4)

This workshop will focus on the importance of coherence and S-planning, with 'atomisation' in mind. A chance to discuss the rationale behind as well as collaborate on lesson planning and sequencing with other teachers

Effective Blended Approach in Mathematics (Post 16 GCSE)

In this workshop we will explore how blended learning is different to traditional maths' sessions, and try activities to experience the "student world". We look at the benefits of using technology in maths and how we can develop a curriculum to help our students "bridge the gap" in missed knowledge.

**WED
30TH
JUNE**

Highlighting Small Conceptual Steps Through Examples (KS3, 4 & 5)

This session will look at how we can plan lessons focussed on a small conceptual step, rather than a small procedural one, with the examples we use. This will include examples from lessons observed by the presenter in Shanghai and is designed to help participants to consider what we really mean by 'small steps' and coherence in mathematics teaching.

Variation (KS3 & 4)

This workshop will explore the careful use of variation by adopting intelligent practise using both procedural and conceptual representations. We will look at the knowledge dimensions and pay particular attention to the difference between variety and variation.

You will need to select your workshop when booking, as they run concurrently. Attendees will receive access to all of the recordings from that day, so you won't miss any content!

**THU
1ST
JULY**

Transitioning into Year 7 (KS3)

This workshop will look at the shaping of the Year 7 curriculum, making it a coherent journey from previous learning, with particular attention to incomplete or disrupted learning from upper KS2. We will focus on the most important elements of knowledge and understanding by making reference to key mathematical guidance produced for Year 6. We will explore the Year 6 ready-to-progress criteria and discuss the implications this has on our Year 7 curriculum.

Number Talks (KS3)

Number talks are short focussed class discussion modelled by a teacher. A strong feature in Primary schools, this session will explore what they look like and you can use this to support transition into KS3.

Getting to grips with quadratics at A-Level (KS4 & 5)

This workshop will centre around quadratic graphs and a means of exploring some key ideas at A-Level, including multiple representations, transformations and invariance, proof, problem solving and modelling. We will make use of dynamic graphical technology and explore it as a means of building conceptual understanding in ways that are difficult to achieve otherwise.

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