**Workshop notes and presenter biographies.**

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| **Keynote Address****Clare Lee*****Lecturer in Education, The Open University***Lecturer and researcher in mathematics education. Current research interest is teaching mathematics for life-long learning and use of mathematics. Author and editor of several books and journal articles on teaching and learning mathematics across all phases of education. Research Fellow on the Kings’ Formative Assessment Project.**Developing mathematical resilience**Learners of any age need resilience to learn mathematics in ways that allow them to develop sufficient confidence to use and control mathematical ideas *for themselves*. Much mathematics is offered in an exclusive way that relies heavily on memory. They say, “learn to do it our way and you won’t go wrong” then society is surprised when learners exclude themselves from doing mathematics. Instead of “path smoothing”, teachers should work in ways that enable learners to see mathematics in the world and help them feel the satisfaction that comes from a struggle conquered. They must be inclusive by offering different ways to learn mathematics and encouraging learners to seek and give help in the community. |
| **Building conceptual understanding using “Maths in Context” teaching approaches**“Maths in Context” teaching approaches engage students in order to build their conceptual understanding. The workshop will draw on these approaches trialled by Wirral Met maths team whilst teaching Functional and GCSE Maths to vocational students. The approaches themselves draw on the fruits of longstanding collaborative partnerships with MMU, MEI and NCETM.**Heather Aspinwall**[***Curriculum Manager Applied Science & Mathematics***](https://www.linkedin.com/title/curriculum-manager-applied-science-%26-mathematics?trk=mprofile_title)***,*** ***[Wirral Met College](https://www.linkedin.com/vsearch/p?company=Wirral+Met+College&trk=prof-exp-company-name" \o "Find others who have worked at this company)***Heather has taught maths in FE since 1988. She has been subject leader in both Skills for Life and Applied Science and Mathematics. Until recently she was College Manager for Mathematics and STEM, bringing maths together across the College. She is currently Director of Science and Mathematics. |
| **Dyslexia or dyscalculia?**Specific Learning Difficulties (SpLDs) on mathematics learning. In particular, the question 'dyslexia' or dyscalculia?' will be discussed, focusing on differences and commonalities. The particular challenges that students with SpLD face will be considered and basic strategies, resources and approaches which help teachers, tutors and students to meet these challenges will be explored.**June Massey*****Freelance consultant, trainer, SpLD assessor and tutor***June specialises in the impact of dyscalculia and other SpLDs (including dyslexia and dyspraxia) on mathematics learning.  She has presented training days and workshops in a variety of settings, including the British Dyslexia Association International Conference, FE colleges, the University of Cambridge and NANAMIC. She is the author of "Meeting the Needs of Students with Dyslexia". |

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| **Improving mathematics learning in Stoke/at Stoke College**The mathematics team at Stoke-on-Trent are an experienced and innovative group, grappling with the difficult challenges presented by students studying functional maths or re-sitting their GCSE. Martin and the team will present a session demonstrating the use of growth mindsets, bar modelling and manipulatives. You will get a chance to work with Dienes blocks, multilink cubes and to do some practical trigonometry using measuring equipment. This interactive presentation will outline ways in which staff at the college have worked together successfully (and sometimes less successfully) to meet the challenges presented by their learners.**Martin Newton*****Maths PD lead, Stoke-on-Trent College***Martin leads the maths team at Stoke-on-Trent College. He also works as a NCETM PD Lead and runs courses for ETF. He has led a number of initiatives at the College including becoming an early adopter of Core Maths. He loves active approaches to learning and is a born again ‘bar modeller’.  |
| **Core mathematics**This workshop will include an update on Core Mathematics, and how it fits into the wider picture of increasing maths participation in post-16 in general. The session also aims to share the experience of teaching Core Maths so far, and how Core Maths differs from A-level or GCSE Maths teaching. Finally there will be a mini showcase of the resources used for teaching Core Maths (e.g. Bowland Maths, Nrich and resources from the Core Mathematics Support Programme).**Lily Tang*****Mathematics Lecturer and Core Mathematics Lead, Cambridge Regional College***Lily Tang is a Maths lecturer as well as the co-ordinator for Core Maths at Cambridge Regional College, a medium sized FE college in Cambridgeshire. As well as teaching functional skills and GCSE resits, she is teaching both Year 1 and Year 2 Core Maths classes to learners following Level 3 BTEC programmes in Uniform Services, Art, Business, Media and Games Design. |
| **Creating puzzles, investigations and games which reinforce mathematical concepts**Learning through play is a useful way for teachers to introduce new topics or revise previous subject matter. This workshop will give you a hands-on approach to creating your own resources from scratch.**Anne Townsend*****Independent Mathematics tutor***Having taught music for most of her life, in 2003 Anne decided to enroll on the A level maths course at her local college as a challenge. A few years later she started teaching mathematics at the same FE college, where she worked until 2015. Anne is currently working as an independent mathematics tutor and an A level examiner. |