

## **SYMH Secondary Update**

**November 2017**

*It is now widely accepted that the best form of professional development is a series of sessions focusing on a theme attended by colleagues working collaboratively. Whilst led by a facilitator, who may be a specialist, the emphasis is not on being told how to teach but working together to develop a greater understanding of how children learn best. This is even more impactful if the programme involves an aspect of teachers trialling strategies and resources in the classroom before reflection and discussion. **This is what a work group aims to deliver for participating teachers.** Call it a work group, teacher research group or lesson study – each model has its own flavour but are underpinned by the same principles that mirror the aim of SYMH.*

*“Helping teachers to develop as reflective practitioners”.*

*Many of the work groups are due to start this coming half term and I strongly encourage you and your colleagues to consider engaging in one of them.*

*Best wishes.*

*Pete*

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### **Work groups for 2017/8**

Y5-8 continuity

Mathematical thinking at GCSE

Hard to teach GCSE topics

Addressing GCSE resits

Incorporating Technology

Arithmetic skills in KS3

Teaching for mastery specialist programme

### **Other contents**

FREE critical thinking professional development

Invitation to find out about Mathematics Mastery ©

Sheffield TeachMeet

### **Y5-8 continuity work group (start date 22<sup>nd</sup> Nov)**

Schools are invited to collaborate with primary partners to explore common approaches to a particular conceptual development (Multiplicative Reasoning) that crosses the key stage 2/3 divide. Schools are particularly encouraged to participate with one or more of their feeder primary schools.

[Click here for link to SYMH website and further details](#)

### **Mathematical thinking and the new GCSE (start date 7<sup>th</sup> Dec)**

Developing this element of the curriculum that underpins much of what is taught has been a challenge for many schools. This work group aims to address the issues that teachers can sometimes find frustratingly difficult to engender in their learners but is increasingly essential for learners to develop if they are to realise their potential.

[Click here for link to SYMH website and further details](#)

### **Hard to teach GCSE topics (three local venues available)**

This is part of a national initiative in which colleagues are encouraged to collaboratively develop strategies to address specific topics. Strategies and resources will be freely shared and whilst there will be an element of “quick wins” considered, the longer term implications for learning at KS3 will also be reviewed. With work groups starting in **Barnsley (4<sup>th</sup> Dec) and Rotherham & Sheffield (start dates to be confirmed soon)** this is a great opportunity to get involved.

[Click here for link to SYMH website and further details](#)

### **Addressing the new GCSE resits (start date 6<sup>th</sup> Dec)**

An opportunity to work with colleagues from schools and colleges to address the issues around students re-taking the new GCSE.

The impact of the new curriculum on existing strategies will be discussed and there will be the opportunity for reflecting and reviewing the issues around successful practices as well as sharing and trialling resources.

[Click here for link to SYMH website and further details](#)

**Using Technology in the classroom (start date 23<sup>rd</sup> Nov Sheffield)**

***NB there will be a further Doncaster based cohort later in the year.***

This work group will focus on developing strategies and resources to support teachers at GCSE and beyond to incorporate this aspect into everyday teaching. This will include resource development and trialling ideas out in the classroom followed by collaborative reflection and review. In particular the use of Geogebra as a tool for graphing, geometric modelling and a statistical analysis is investigated.

**[Click here for link to SYMH website and further details](#)**

**Arithmetic skills in KS3 (start date 28<sup>th</sup> Nov)**

Addressing the basic skills and understanding of numeracy in the key stage 3 years is essential for future success at GCSE. This work group will provide support for schools wishing to develop and incorporate the Rainbow Arithmetic strategy into their curriculum. Schools are offered free resources and a proven successful strategy to address the catch-up and consolidation of these skills.

**[Click here for link to SYMH website and further details](#)**

**Teaching for mastery programme (session dates to be announced soon)**

South Yorkshire is lucky enough to have seven secondary teaching for mastery specialists within our region, four of whom are sponsored by SYMH. Consequently a number of teacher research groups (TRGs) will be available across the region throughout the year for schools to engage in. These will include collaborative planning sessions as well as lesson observations and reflections.

**[Click here for link to SYMH website and further details](#)**

## **FREE Professional Development opportunity**

### **Critical Thinking (17 Nov & 25 Jan)**

The British Council has collaborated with the NCETM to offer this **free** course at **Notre Dame High School, Sheffield** to support and help you to explore practical ways of developing and implementing the fundamental elements of problem solving and critical thinking in mathematics teaching and learning

This course is recommended for those teaching or leading mathematics at key stages 3 and 4, who wish to develop the use of problem solving skills and critical thinking in this challenging, new aspect of the curriculum [Follow link for FLYER](#)

### **A message from Adam Weale**

*Meadowhead are working closely with the Mathematics Mastery team and are currently using their resources and planning structures at KS3. They have asked that we host a twilight session at Meadowhead so that any interested heads of dept and/or SLT could come and see it in action and have the opportunity to ask questions. There is a booking form should you wish to attend so that we know numbers and can make appropriate arrangements for the session. All the information is below. Any queries, drop me a message. Thanks Adam [WealeA@meadowhead.sheffield.sch.uk](mailto:WealeA@meadowhead.sheffield.sch.uk)*

**How do you embed problem solving into all of your teaching of mathematics?**

**How do learners develop a connected understanding of the many maths topics that they meet?**

**How can learners develop a depth of understanding and a resilience that empowers them to solve challenging problems with confidence?**

In this session, Jay Timotheus will explore how topics that are apparently simple or routine, as well as topics that seem hard or challenging, can be taught in ways that support learners to make deep connections, and so solve problems more flexibly. The session will include teaching ideas for multiples, constructions and circle theorems. This will be a practical session, so come prepared to work on some mathematics and explore new ways to make these topics accessible to all learners.

**Date: Tuesday 14<sup>th</sup> November 2017**

**Time: 16:00-17:30**

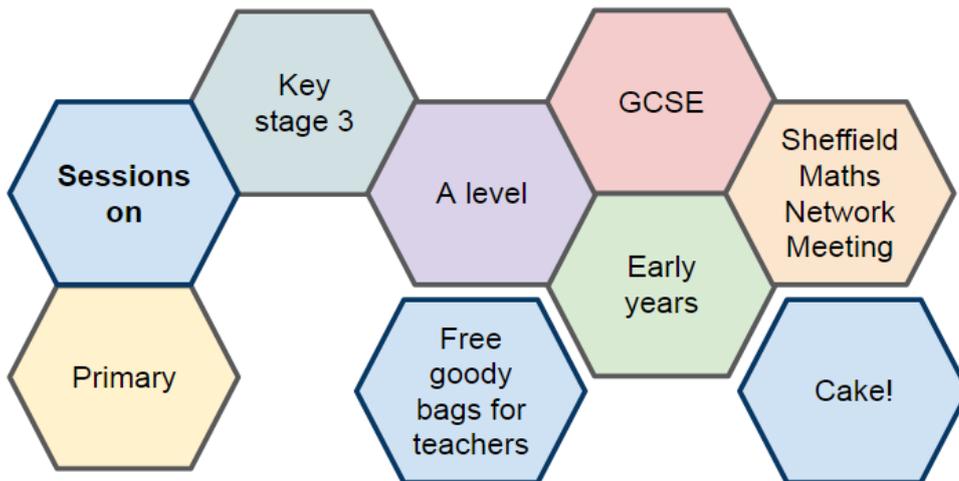
**Venue: Meadowhead School, Sheffield**

**Cost: Free** Click [here](#) to book.

# Sheffield Maths TeachMeet

Tuesday 28th November 2017 Longley Park 6<sup>th</sup> Form College, Horninglow Road, S5 6SG

A TeachMeet is an organised but informal meeting for teachers to share good practice, practical innovations and personal insights in teaching.



**Registration and refreshments from 3:30**

**4:15-5:00** First session

**5:15-6:00** Second session

**6:00** Lightning talks

**6:30** Finish and off to the pub for some food, puzzles, games and crafts organised by Sheffield Maths Jam

**@LongleyMaths #SheffMathsTM**

Book your place by emailing [Jenny.Hughes@Longleypark.ac.uk](mailto:Jenny.Hughes@Longleypark.ac.uk)

South Yorkshire Maths Hub Secondary Update

Past copies of Update can be uploaded from the SYMH website [newsletter page](#).  
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