

Autumn Newsletter



National Centre
for Excellence in the
Teaching of Mathematics

North West Three Maths Hub

In July 2014 the DFE released information relating to 32 Maths Hubs which have been set up across the country in order to improve standards of maths education in all phases.

The St Helens Teaching Schools Alliance has been designated as 1 of 32, now 35 maths hubs nationally. We are the only primary hub in the North West and one of only 6 primary hubs nationally.

Kirsty Haw, Principal of St Mary and St Thomas CE Alliance (part of the Three Saints Academy Trust), the Lead School, visited the DFE to meet with ministers to discuss the development of the hubs and the funding which will support this work, this was then followed by a reception at Downing Street in recognition of the importance the government are placing on this new initiative.

The overall aim:

All Maths Hubs working together to support primary practitioners through to post 16 to have a chance to change/influence maths education across the country.

About our work:

As a Lead Maths Hub we provide support to all schools in the area and the NW, across all areas of maths education, including:

- Recruitment of maths specialists into teaching.
- Initial training of maths teachers and converting existing teachers into maths.
- Co-ordinating and delivering a wide range of maths continuing professional development (CPD) and school-to-school support.
- Ensuring maths leadership is developed, e.g. running a programme for aspiring heads of maths departments.
- Helping maths enrichment programmes to reach a large number of pupils from primary school onwards.

For further information in relation to National and Local work streams that Maths Hub NW3 is involved in please visit:

<http://www.nwmathshub3.co.uk/index.html>

or follow us on twitter: @NWmathshub3.

Alternatively please don't hesitate in contacting:

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National projects and priorities to date- July 2014-2015

1. Implementation of learning from England-China exchange

In September (2014), Kirsty Haw and Lisa Bradshaw (Maths Hub Lead) visited Shanghai in order to lead the China-England mathematics teacher exchange in this area. The “hub” schools hosted Chinese teachers, for 4 weeks in November 2014, teachers in St Helens and surrounding areas had the opportunity to participate in Master classes led by the Chinese teachers, share online lesson plans, teach their children math's every day and encourage teachers to take part in research projects.

As a result, the two lead schools (**St Mary and St Thomas CE and Bleak Hill Primary**) have changed the way they teach maths based on lesson design and structure. This now takes the form of a 5 part lesson, making mathematical links and connections. It also includes: Starting with a 'hook' (anchor task) and systematic variation used as intelligent practice. Other elements of practice that have changed include: FS/KS1 just focussing on number enhanced by

enrichment weeks, 45 min maths lessons instead of 60 mins and mental/oral strategies (including number bonds and timetables) to be taught outside of the 45 min maths session.

An impact report based on the Shanghai baseline test has been completed. All children have made an average of at least 6 points plus and their attitudes to mathematics have significantly improved. The teachers have enjoyed developing and embedding this approach. This will

continue in 2015-16.

Wave 1 roll out of the '5 part lesson structure' has begun. This has been introduced to 8 St Helens, 4 Warrington and 4 Knowsley schools. Teachers have completed 'good practice' observation sessions at St Mary and St Thomas' CE primary school.

The **Secondary China England Exchange Visit** will take place in September 2015- **Holmes Chapel High School**, part of the Chimney House TSA (Cheshire) will lead this work on behalf of Maths Hub NW3. Further

2. A Mastery approach- Singapore Text books

St Thomas of Canterbury (St Helens) and Our Lady of Pity (Wirral) are leading the 'Maths No Problem' text book trial on behalf of Maths Hub NW3. HTs/Maths SLs and Y1 teachers are trialling this approach. **Our Lady of Pity will lead** on this project. **Wave 1** of the roll out has started focusing on St Helens, Wirral and Warrington. **Wave 2** will begin in September 2015 to include: Knowsley, Liverpool, Widnes/Runcorn/Halton and Ellesmere Port. 6 schools from each authority have been selected and have attended training on lesson design and structure in May

2015. This will continue in September 2015. Maths Hub NW 3 will part fund this project.

Newfold Primary School (Wigan) are trialling 'INSPIRE' created by OUP as an alternative. Newfold will lead and support 6 Wigan schools to roll this out in September 2015.

All three schools have tested the children as a baseline using Singapore style questions and attitudinal surveys have been conducted.

A recent data snapshot shows that all scores have

improved. The children are now thinking in a more **m e t h o d i c a l** and mathematical way which gives them the tools to have a go at all the problems. The children have developed in confidence, especially the lower attainers. Children are happier to discuss problems with the class and enjoy exploring and explaining different methods to their peers. In addition, children are now more willing to participate in maths discussion and have overcome the fear of 'getting it wrong'. Children relate to the anchor tasks as these are

often based on real stories. Once children have found a method to solve a problem, they are becoming more natural at finding more than one method and selecting a preferred method, especially the higher attaining children. Children benefit from the concrete equipment before moving on to the pictorial and abstract ways, because they are able to explore a variety of methods and recognise which methods are most effective as they are able to see it visually and manipulate as they choose. Children seem to relate to the structure of the lessons.

3. Post 16 widening participation

A work group has been created and is being led by **Carmel College** (St Helens). The group include partners from FMSP, LHU, CMSP, St John Bosco High School (Liverpool), Formby High School and Lisa Bradshaw (NW Maths Hub lead).

The focus of this group is to increase wider post 16 participation in mathematics to include: A Level Maths and CMSP.

The group have completed a data exercise- targeted and lead schools have been identified.

Letters and attitudinal surveys have been created and will be sent to all parties outlining bespoke offers for each school. This will include: CPD, promotional events/roadshows and sharing of 'good' practice.

Local Initiatives have included:

KS2/3 Maths transition project- This has been delivered across St Helens in the summer term 2014-15 based at Rainford High, Rainhill High and Haydock High involving 13 local feeder schools. This has included 7 'face to face' sessions and will continue throughout 2015-16.

Secondary SKE (Subject Knowledge Enhancement) project- Maths Hub NW3 have successfully worked with Liverpool Hope University and St John Bosco to design and deliver the programme. Rainford High School was the lead school within St Helens LA. The programme has a secondary focus with the aim of improving the subject knowledge of non-maths specialists. **In 2014-15 we recruited 10 delegates with 100% completion and pass rate.** We have been successful in securing additional funding to deliver the programme again in 2015-16. We are currently recruiting and have 30 places; this programme is **FREE of charge** to all delegates.

Primary Maths Subject Leaders Network- Tara Loughran will continue to deliver this network. We have 40+ subject leads that attend from St Helens, Knowsley, Wigan and Halton.

In 2015-16 these sessions will run on:

Thursday 22nd October- 9-3.30pm at St Helens Chamber

Friday 11th March 2016- 9-3.30pm at St Helens Chamber

Friday 1st July 2016- 9-3.30pm at St Helens Chamber

Themes to include: Maths Hub NW3 updates, Assessment of Mastery, Learning from Shanghai and Singapore, Reasoning, fluency and Problem Solving in the National Curriculum, Teaching for mastery- What does depth look like? Effective monitoring and meeting the needs of the new testing and reporting framework.

Secondary/Post 16 Maths Subject Leader Network- Lindsay Porter (AQA associate and Secondary Maths lead) will continue to deliver this network in St Helens and Wigan. A Knowsley network will be introduced in autumn 2015. We now have 23 HOD regularly attending, this has grown from 5 (aut term), 15 (spring term) and it continues to grow!

In 2015-16 these sessions will run on:

Wigan group- 1.30-3.30pm at Birchall CPD Centre.

Tuesday 20th October, Wednesday 10th February 2016 and Wednesday 15th June 2016.

St Helens group- 1.30-3.30pm at Rainford High School.

Wednesday 4th November, Tuesday 23rd February 2016 and Monday 20th June 2016.

Knowsley group- 1.30-3.30pm at Lord Derby Academy.

Wednesday 11th November, Tuesday 1st March 2016 and Monday 27th June 2016.

Themes to include: Reasoning at KS3, Learning from Shanghai and Singapore, Effective Maths transitions- KS2-3, KS3-4 and KS4-5, New GCSE support, Mastery (teaching for depth) , Assessment without levels, CMSP/FMSP, subject knowledge and progressional understanding CPD sessions and resources.

Secondary Maths conference- 32 delegates attended with extremely positive feedback. This will be an annual event in association with Liverpool SIO and Rainford High.

Mary Stevenson, Liverpool Hope University continues to lead a **research project based on Mastery within the new NC 2015.** This has involved two Liverpool Primary Schools.

NW Maths Hub Conference- held at Chorley Woodlands on Thursday 9th July 2015. 220 delegates attended. This was such an amazing event with overwhelming positive feedback and as a result the three NW Hubs intend this to be an annual event.

Core Maths Support Programme- CMSP: Cowley Language College (St Helens), Bridge Water High school (Warrington) and Blue Coats (Liverpool) are engaged in the Early Developers CMSP. Priestley College (Warrington) are also involved in supporting this project.

'Maths Mastery'- In association with the 'Ark Academy' project

8 primary schools and 1 secondary school, including the two lead schools, will begin the **'Maths Mastery' programme** in September 2015, starting in years 1 and 7. This will be part funded through Maths Hub. These schools are being trained at present.

Planned projects for 2015-16 include:




National projects:

1. **England-China exchange project** (learning from Shanghai- a mastery approach); this is both **primary and secondary**.
2. **Singapore text book trial**- a Mastery approach, this will continue in Year 1 but will move into Y2.
3. **Post 16**- continue with the widening participation project.
4. **Secondary Mathematical reasoning** in KS3.
5. **Maths Masters**- National Primary roll out. **NW Maths Hub 3 has successfully appointed 4 maths specialists** to lead this work.

Congratulations go to:

Adrian Cannell (Great Crosby Catholic Primary, Liverpool), **Rachel Hounslow-Griffiths** (Meadow Primary school, Ellesmere Port, Cheshire), **Susan Brooks** (St Bernard's RC Primary School, Ellesmere Port) and **Stacey Goodband** (St Ann's CE Primary School, St Helens).

This role will involve: leading the development of mastery teaching in primary schools within their Maths Hub area.



NW Maths Hub 3 local projects include:

'**Excellent Maths Teachers Programme**' for Primary Teachers- to improve the quality and supply of maths subject leaders and maths specialist teachers to become future Maths SLEs/PDLs or 'National Maths Masters'.

Developing number sense in the EYFS.

Maths SLE programme in association with MCA/Teaching schools.



This achievement is **national recognition** of the overwhelming success of the **St Helens Teaching Schools Alliance** success to date. All involved; partners and members should be extremely proud of what has been achieved and feel excited about all the work streams that their schools, staff and children can become involved in next year! **Thank you for your continued support** and we look forward to working with you all in 2015-16!!

