



Covering Dorset, Devon, Somerset and Wiltshire

Level 3 Coordination
Group Update - 4

Teaching Schools Leading
the way - 6

Subject Leaders
Meetings - 7

A key idea with the Maths Hub programme is that the Hub helps to join the various aspects of the maths community together. This was clear in the original name for the Hub programme which was MESH. Most of the projects we are running aid this aim, but in particular we have the Coordination Groups for Primary Mastery and Level 3 Post-16.

The Primary Group is pulling together national priorities and training, with what is happening locally. The progress of schools working with the Singapore textbooks is being compared to those trialling Shanghai pedagogies, and with those schools not using either of these approaches. The implications of whole class teaching for mixed-aged classes, so relevant in our area, are being researched, as are the use of consistent approaches to aid Key Stage 2 to 3 transition. The Group is led by Ruth Trundle, Devon LDP, and Heidi Whitney, Dorset Advisory, as they have excellent knowledge of the schools across the region. They are supported by teaching school representatives from across the region so good practice can be shared and built on more quickly. The Primary Subject Lead meetings held

locally in Devon, Dorset and Somerset are a key forum in which this groups shares its work.

The Level 3 Post-16 Coordination Group is a similar set-up to that at Primary. The group is led by Tom Rainbow from Ivybridge Community College and includes other teachers, advisors, the Further Maths Support Programme, and the Core Maths Support Programme. There is a strong remit to increase participation post-16 but the group also works to support the teaching of Level 3 qualifications, particularly as the new A-level is introduced. Some of the activity is led by this group, but much is about signposting teachers to professional development or to where they might find out more, such as at an exam board local event. The Secondary Subject Lead meetings for each area are used to communicate with Heads of Maths and all leaders are welcome to these. (See page 7).

The website and newsletter contain all the information that we get about the maths community in the area. For example details of the mathematics association meetings can be found, as can

training events running in the area. A notable forthcoming event is that Dr Yeap Ban Har will be sharing his Singapore approach at the RNLI College, Poole in March. There is also a section for student events.

If you wish to have anything listed or circulated then please contact Caroline at jurassicmaths@woodroffe.dorset.sch.uk.

Report by: Neil Vincent
Jurassic Maths Hub Lead

SAVE THE DATE



**Jurassic Maths Hub
Conference 2017**

**To be held at Taunton
Racecourse on the
26th of June 2017**

**More information to
follow - watch this space!**

Maths — No Problem! Event Led by Dr Yeap Ban Har

16 + 17 March 2017 – RNLI College, Waterfront Suite, Poole

Wimborne Teaching School is delighted to offer colleagues the opportunity to meet and learn from Dr Yeap Ban Har who will cover all elements of the Singapore maths approach.

Overview

Ofsted, the National Centre for Excellence in the Teaching of Mathematics (NCETM) and the Department for Education (DfE) have all emphasised the value of the pedagogical and discovery learning nature of the Singapore approach to teaching maths.

With teaching methods that have been tried and tested over the last 30 years, and through the incorporation of key learning theories, such as Piaget, Dienes, Bruner, Skemp and Vygotsky, Singapore has become a “laboratory of maths teaching”, which has seen them rise to the top of the international rankings for TIMSS (Trends in International Mathematics and Science Study) and PISA (Programme for International Student Assessment) for mathematics.

The Singaporean expert will cover concrete-pictorial-abstract, effective use of questioning to encourage deep mathematical thinking, bar modelling and problem solving. At the end of the course the aim is that you will understand the key learning principles behind the success of Singapore Maths and the approach used within the Maths — No Problem! Programme.

Course impact for teachers

Headteachers/Heads of School, deputies, maths leads and senior team members should come away with a full understanding of the principles behind Singapore Maths in order to train and support teachers within their settings.

Course impact for schools

Your setting will benefit from having well-trained staff with the in-depth skills necessary to support the implementation of a mastery teaching approach across the school.

Who should attend

The programme is recommended for:

- anyone responsible for raising maths teaching standards, regardless of whether your school is using the Maths — No Problem! materials;
- those who have completed the Teaching For Mastery Essentials course;
- those with previous exposure to the principles of Singapore maths or maths mastery;
- teachers, mathematics subject leaders/ department heads and senior leaders (year 1 to year 6);
- those teaching early years and year 7 and 8 can also benefit from this training.

Cost & how to book

To book your place, please contact:
jo.dickinson@wimborneacademytrust.org.

There are limited spaces so please book early. The total cost per delegate will be £575 + VAT which includes 2 days of training plus refreshments and resources. Delegates must attend both days to ensure they benefit from the training.

Topics to be covered:

Addition and Subtraction
Multiplication and Division
Model Method Whole Numbers
Model Method Fractions Assessment
Providing for Advanced Learners
Providing for Struggling Learners
Revisiting Measurements
Revisiting Geometry



MATHS 
NO PROBLEM!

Singapore Maths is coming
to you!

A one day course introducing the revolutionary teaching methods of Singapore maths. Aimed at the Primary School sector.

An opportunity to learn the essential concepts of Singapore maths and maths mastery.

THREE REASONS TO COME ON THIS COURSE:

- Find out how Singapore students consistently score at the top of international maths league tables, as such TIMSS and PISA
- Explore the key learning principles behind the success of Singapore Maths, such as concrete-pictorial-abstract and bar modelling
- Learn about mastery in the Singapore Maths approach. The course is fully aligned with the English national curriculum for maths.

Please go to <http://bit.ly/2j8rNwt> to book a place. Or call the Maths No Problem team on 01892 537706 for more information.





Tom Rainbow

Level 3 Coordination Group Update

The Jurassic Hub Level 3 Mathematics Coordination Group has been running for a term now and comprises of:

- Gordon Davis - Representing SWAT (South West Academic Trust)
- Jo Denton - Core Maths Lead (Dorset)
- Margaret Harding - Further Maths Support Programme Area Coordinator (Devon, Cornwall, Torbay, Plymouth)
- Hazel Pilling - Representing FE colleges
- Tom Rainbow - Level 3 Lead for the Jurassic Hub and Core Maths Lead (Devon)
- Jo Sibley - Further Maths Support Programme Area Coordinator (Dorset, Somerset, Wiltshire, Poole)
- Naomi Sani - South West Core Maths Regional Adviser
- Neil Vincent - Jurassic Lead

With so many changes occurring in level 3 mathematics (and level 3 education in general) the coordination group has been busy. Finding models for delivery that ensure flexibility and preserve Further and Core Maths options has proven to be challenging and many schools and colleges have had to develop innovative approaches to timetabling in order to do this. We are hoping to produce a series of case studies that will be published on the hub website that will provide possible models for delivery that include Further and Core Mathematics in the near future.

Further Maths Support Programme

The Further Maths Support Programme Area Coordinators have been working tirelessly to help teachers in the region prepare for the new A level Mathematics and Further Mathematics courses that will commence in September 2017. As well as running bespoke INSET days throughout the region, they also run regular Teacher Network Meetings. Dates and venues of upcoming Teacher Network meetings in the area are:

Venue	Date	Focus	Coordinator
Poole High School	2nd Feb	To be confirmed - requests welcome	Jo Sibley
Exeter Maths School	23rd Feb	A brief introduction to large data	Margaret Harding
Sir John Colfox	28th Feb	To be confirmed - requests welcome	Jo Sibley

Further details of the support on offer in the South West from the Further Maths Support Programme can be found on their website at: http://furthermaths.org.uk/SW_CPD

Core Maths Support Programme

The work of the Core Maths Support Programme continues at pace as it looks to assist in preparing an ever greater number of centres to run the course in the next academic year. Our priority this year is to offer CPD for teachers either already teaching, or intending to teach the course. As well as holding our Termly Regional Conferences, we will be offering bespoke INSET for departments as well as INSET days in which participants can observe a Core Maths lesson in action as part of the day.

The date of the next Regional Meeting is the 14th of March, venue to be confirmed (but likely to be in East Devon). Details of CPD opportunities are available at the Core Maths Support Programme website: <http://www.core-maths.org/>

If you would like us to arrange bespoke core maths CPD for your department (or for more general advice) please contact either:

Tom Rainbow (for Devon and South Somerset):

trainbow@ivybridge.devon.sch.uk

Jo Denton (for Dorset and South Somerset):

JDenton@qe.dorset.sch.uk

Level 3 Participation Work Group

Six Devon schools (Ivybridge Community College, Coombeshead Academy, Sir John Hunt Community College, Lipson Academy, QE School Crediton and

Notre Dame RC School) have undertaken this work group project. Each school will be exploring one aspect of L3 mathematics provision with an aim to understand more fully what the current situation is with regard to participation rates and how this could be altered or improved.

Issues that were initially considered included:

- Retention rates from Y12 to Y13
- Core Maths – recruitment of students and link to other A level subjects
- Staffing issues – where can we find the teachers
- Further Maths – how does it fit in with our current timetabling models
- KS4 provision – can numbers in L3 be improved by altering the way we teach in lower school
- Gender imbalances in mathematics at L3
- Use of technology

The project has its mid-year meeting coming up at the end of February and will be completed by the summer so that its findings can be used by teachers in the next academic year.

For more information or how to get involved with the Level 3 Coordination Group please contact Tom Rainbow.

Report by:

Tom Rainbow

Ivybridge Community College

trainbow@ivybridge.devon.sch.uk

Maths

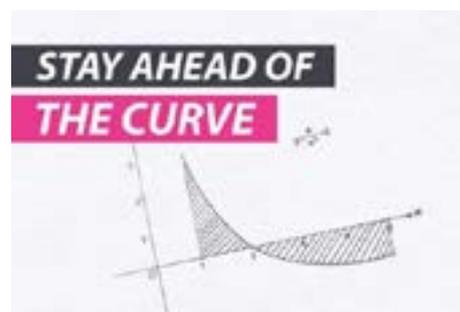


The spotlight of A level reform in 2017 falls on Mathematics and Further Mathematics, with the teaching of AS and A level experiencing the most significant changes for more than sixteen years.

With all this change looming, OCR are hosting five FREE national conferences, featuring OCR, MEI and Underground Maths. The Local conference is being held in Exeter on Wednesday 22nd March 2017.

Should you have any questions about the event or for more information, please call 01223 552520.

Or go to: <http://bit.ly/2jXNVgS>



Teaching Schools Leading the way to improve Key Stage 2 Maths Outcomes in Somerset

There are exciting times ahead for Teaching Schools and the Alliances that they represent, with significant capacity building on-going, to ensure there is the resource and expertise available to support a school led self improving system. Within Somerset, the Local Authority have recognised this and invited Teaching Schools to be part of a monthly school improvement conversation, which has a focus on individual schools but also recognises issues across them.

In January, a programme designed by three teaching schools, supported by the Local Authority, two Maths Hubs and the Somerset Primary Headteacher's Association will roll out. The programme funded by the Local Authority will seek to improve outcomes in Maths across the County through four main strands of work.

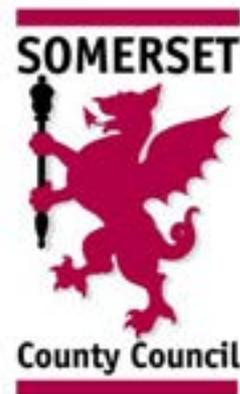


Strand 1: Maths Subject Leader Briefings and Leadership Training

Half termly briefings for maths leaders and potential maths leaders delivered by Boolean Maths Hub leaders from the Bristol Primary Maths Hub and the Jurassic Coast Maths Hub. These meetings will also have some leadership training input for both existing and future leaders of Maths.

Strand 2: IMPACT (Improved Maths Progress and Classroom Teaching)

Training for teachers from accredited SLEs to improve their practice in the classroom. This programme and its associated training sessions will be hosted in the Somerset Primary Teaching Schools (Redstart, Huish and Preston Primary Schools) and will be delivered by practitioners.



Strand 3: Maths Training for Year 6 Teachers

Training with a specific focus on Year 6; being pragmatic, practical and focused on techniques and strategies to accelerate progress and boost attainment. This training will be delivered by an experienced SLE from Bristol Primary Teaching School Alliance.



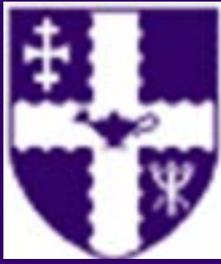
Strand 4: Bespoke SLE Support

Selected schools are eligible for bespoke in school SLE support, which will be aligned to their self-evaluation and school improvement plans.

This strategy recognises the limited capacity we have as individual teaching school alliances seeking to bring together resource and expertise across a range of partners to enable the capacity for a county wide strategy to improve Maths. This "for schools by schools" approach has been valued by schools with over 100 teachers and leaders involved in the training which starts in January.

Report by: Tony Bloxham





Loughborough University

Dyscalculia, Numeracy and Maths Anxiety

Wednesday 12th April, Loughborough University

Keynote speakers:

Professor David Sheffield: Brief Interventions for maths anxiety

Peter Jarrett: The assessment of dyscalculia and maths learning difficulties

There will also be a range of parallel workshop sessions and some case studies

- Maths and statistics anxiety in higher education
- Strength and Knowledge: developing self-realisation and perceived limit breakthroughs in mathematics students
- Practical Strategies to Support Students with Dyscalculia/Maths Learning Difficulties in Higher Education
- From Engineering to Fine Art: supporting dyscalculic students
- Dyscalculia in the Workplace

All rooms have disabled access and disabled car parking is available.

Further details and booking please refer to the University Website: <http://www.lboro.ac.uk>



Dorset Subject Leaders Meetings 2017

Wednesday 22nd March

Friday 16th June

Venue: Kingston Maurward, Dorchester, DT2 8PY

Devon Subject Leaders Meetings 2017

Thursday 23rd March

Tuesday 21st June

Venue: TBC



Plymouth Subject Leaders Meetings 2017

Thursday 2nd February - 1pm Eggbuckland CC

Tuesday 7th March - 1pm Notre Dame School

Wednesday 3rd May - 1pm Plymstock School

Tuesday 4th July - 1pm Devonport High School for Girls

For more information email Donna Roughton:

droughton@phsg.org



ALL SAINTS TEACHING SCHOOL ALLIANCE

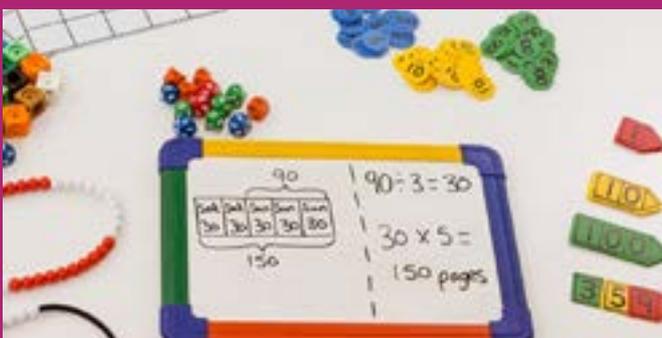
The All Saints Teaching School Alliance is committed to excellence and understand the importance of investing in high quality support and CPD for school staff. They draw upon a wide range of expertise from across the age ranges in order to enable schools' CPD and development needs to be met. You will find details about all of their CPD events plus online booking forms on their website <http://astsa.org/cpd/>

SINGAPORE BAR MODELLING

A twilight introduction

This two hour twilight is designed to provide you with an introduction to Bar Modelling, including a chance to try this approach and see how it has such an impact on children and young people. There will be many techniques that you can take from this training to use in the classroom.

7th March 4.00 - 6.00pm Ellacombe C of E Academy, Torquay



IN-DEPTH SINGAPORE BAR MODELLING

Audience: Subject Leaders, Middle Leaders, Class Teachers

This session looks in detail at how bar modelling can be used for each of the four operations and the relationships it exposes, as well as more complex problem solving, focusing on the reasoning the model helps to promote. There will be many techniques that you can take from this training to use in the classroom.

21st February 9.00 - 3.00pm Warberry C of E Academy, Torquay

TEACHING FOR MASTERY:

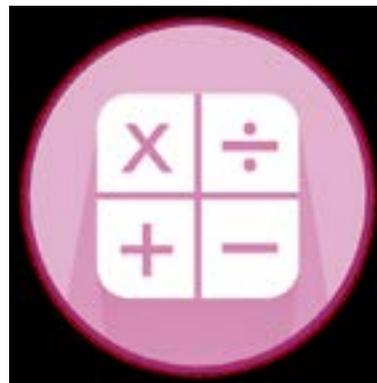
An introduction to the Singapore Approach

Audience: Teachers and Support staff
Participants will evaluate how the textbook material contributes to the children's deeper conceptual understanding of mathematical concepts and teaching for mastery as well as visiting a school using the Singapore Maths No Problem! textbooks, as trialled in the Maths Hubs NCETM national project.

1st February 9.30- 12.30pm, Ellacombe C of E Academy, Torquay

8th March 9.30 - 12.30pm, Warberry C of E Academy, Torquay

MATHEMATICS CPD 2017



MATHEMATICS PROGRESSION IN MULTIPLICATION

Audience: NQTs, LSA + others

Participants will gain an understanding of the best practice in teaching multiplication with the use of apparatus to ensure children's conceptual understanding. They will get the opportunity to use this apparatus and the various methods throughout the session. There will also be opportunities to share best practice and discuss strategies used to deepen children's understanding in multiplication and what it looks like if a child has mastered certain concepts.

7th February 1.30 - 3.30pm Ellacombe C of E Academy, Torquay

MATHEMATICS PROGRESSION IN DIVISION

Audience: NQTs, LSA + others

Participants will gain an understanding of the best practice in teaching division with the use of apparatus to ensure children's conceptual understanding. They will get the opportunity to use this apparatus and the various methods throughout the session. There will also be opportunities to share best practice and discuss strategies used to deepen children's understanding in division and what it looks like if a child has mastered certain concepts.

21st March 1.30 - 3.30pm Ilsham C of E Academy, Torquay

MASTERY MATHEMATICS DEVELOPMENT DAY

Audience: Subject Leaders, Class Teachers and Support Teachers

This workshop will provide an opportunity to collaborate and share best practice.

Participants will have opportunities to reflect on their own practice. They will observe Maths lessons in a range of year groups and school settings with time to reflect and review collaboratively. This will include looking at the Maths No Problem! textbook and teaching where appropriate.

Participants will have the opportunity to share ideas from their own classroom developing a mastery curriculum. Time will be spent focusing on the three aims of the NC: fluency, problem solving and reasoning. There will be opportunities to work with our mastery specialist and establish collaborative relationships to move practice forwards.

14th March 9.00- 3.00pm Warberry C of E Academy, Torquay

You will find details about all of their CPD events plus online booking forms on their website <http://astsa.org/cpd/>

Mathematics workshops for Year 9 students



The Further Mathematics Support Programme

Year 10 Mathematics enrichment morning

The FMSP and Plymouth University are collaborating with other universities in the South West to offer a series of Mathematics Workshops for year 9 pupils. The project will be led by Ted Graham (FMSP Associate) and will involve students from across the South West region. Each school can send a group of 4 students to the day that is most convenient for them. The programme for the day has an emphasis on problem solving and linking kinematics at GCSE with mechanics in the new A-Level.

Venue's include:

- Redruth School 27th January
- Bournemouth University 2nd February
- Bath University 3rd February
- Broad Oak School, Weston super Mare 20th March
- St Brendan's College, Bristol, 21st March
- Exeter University, 23rd March
- Bristol University 30th March

The provisional programme for the day is below:

- 10.00 Welcome and briefing
- 10.15 Problem Solving Session
- 11.15 Refreshment break
- 11.30 Motion Under Gravity (Linking GCSE and Mechanics from ALevel)
- 13.00 Lunch (possibly with mini campus tour)
- 13.45 Card Tricks and Mathematics
- 14.45 Depart

There is no charge for the project day but you will need to arrange travel for the students and any accompanying staff to the University. Places are limited and will be allocated on a first come first served basis. If you require more information or have any questions, please contact Ted Graham Tedgraham@furthermaths.org.uk

This enrichment morning is suitable for Year 10 mathematicians who might benefit from studying Core Maths or A level Maths and/or Further Maths post-16. Student and teacher places at this event are FREE for state-funded schools.

The event will include:

A talk by Ben Sparks:
The Creation of Number

A short session on:
Why do A level Mathematics?

A team competition
with prizes

Dates and Venue's include:

- Thursday 2nd February, 09:30 to 12:30
Minehead TA24 6AY
Places must be booked by Thursday 26th January
- Friday 3rd February, 09:30 to 12:30
St Joseph's Catholic School
Salisbury, SP1 1QY
Places must be booked by Friday 27th January
- Thursday 23rd February, 09:30 to 12:30
Lytchett Minster School
Poole, Lytchett Minster BH16 6JD
Places must be booked by Thursday 16th February

Please note that parking at the school is limited. You are advised to plan time to park nearby and walk to the school. For further information please contact Jo Sibley: josibley@furthermaths.org.uk

For an application form please go to the website:
http://furthermaths.org.uk/enrichment_events



Mathematics Teacher Network

Working with the large data set

The Dorset and Somerset Mathematics Teacher Networks are part of an FMSP-funded project allowing teachers of mathematics to meet, collaborate and share professional development. They meet three to four times per year and the programme is a mixture of informal sessions and speaker-led training events.

Their next session will look at the new requirements for teaching statistics in the new A level Mathematics, with a particular focus on the large data set; how to introduce it and how to use technology to manage it. The session is free and light refreshments will be provided.

These sessions will run as normal in three venue's:

Thursday 2nd February 4:15-5:45pm, Poole High School, Poole BH15 2BW

Tuesday 28th February, Sir John Colfox Academy, Bridport DT6 3DT

Wednesday 1st March, Bridgwater & Taunton College, Bridgwater TA6 4PZ

The Further Mathematics Support Programme future Sessions include:

Poole Mathematics Teacher Network:

Thursday 23rd March

Thursday 27th April

Bridport Mathematics Teacher Network:

Tuesday 28th March

Tuesday 16th May

Bridgwater Mathematics Teacher Network:

Wednesday 3rd May

If you wish to request a particular topic for a network session or to offer to present at one of the meetings, please contact Jo Sibley josibley@furthermaths.org.uk

Or to register your interest please go to the website:

http://furthermaths.org.uk/enrichment_events



For further information on other CPD events run by FMSP please go to their website:
[www.furthermaths.org.uk/SW CPD](http://www.furthermaths.org.uk/SW%20CPD)

Would you like to take the fast-track to train to teach secondary mathematics?

The Teacher Subject Specialist Training (TSST) course is aimed at teachers with QTS or unqualified teachers who are already practising and would like to be able to teach mathematics at secondary level.

The aims of the course are to:

- * Enhance mathematical knowledge to give confidence to teach mathematics
- * Inspire enthusiasm for mathematics
- * Provide teachers with motivating activities and tasks for teaching mathematics
- * Train staff to be able to deliver mathematics content for Key Stages 3 and 4
- * Provide mentoring and support including observations of teaching in the classroom



For teachers meeting the criteria, this course is **FREE** through funding provided by the National College for Teaching and Leadership (NCTL). To apply for this course, please complete the application form <http://bit.ly/zhUs4qt>. The form includes details of all the information you will need to supply in order to apply and advice as to where this information can be found.

If you have any other enquiries please contact the course leader, Andy Oldman.
Email: PooleTSST@poolegrammar.com Tel: 01202 692132



The fast-track model: The project is already training a group of teachers in a series of twilight sessions and we are now open for registrations for a new FAST-TRACK model course.

Teachers on the fast-track course will attend two 2-day study workshops at the Poole Grammar School on: 15th and 16th February and 12th and 13th April 2017. Subsidised overnight accommodation can be arranged, subject to availability.



Maths Adventure Days in School



Subject Revolution create wonderful, hands-on maths adventures in your school hall. Designed and delivered by specialist primary maths teachers, we build a new 'world' full of maths challenges through 3D backdrops, props and resources in a unique maths experience.

Throughout the maths days, content and delivery is continually adapted to each year group and ability.

KS1 and Reception maths days

Maths Revolution

Oh no! Prince Lumino has been left in charge of Mathania and he's in big trouble!

He was too lazy to keep the town tidy and now the queen is on her way back! He has half an hour to get everything back in order. How will he ever do it in time? He's going to need some help.

Lumino needs new recruits for his Number Fix squad. Children will have to work in teams and travel around the amazing town of Mathania created in your hall, to solve maths and number challenges to get everything ready for the queen.

They will need to mend, build, fish, repair, spot, stack and even throw their way to success in a fast-paced, hands-on, maths adventure for children from Reception to Year 2.

The Dark Codes KS2 MATHS

What lies in the shadows?

A series of interactive, practical maths challenges set by drama and media content - brought direct to your school.

A true adventure in practical, hands-on maths. A day full of mathematical reasoning and problem solving that is cleverly differentiated and requires children to work in teams and pass through each maths challenge zone, set up in your hall, undetected by the invading Robotrons. Can they find the codes that will bring down the Robotron's secret server room?

Children will also meet Laura; our most helpful computer based guide.

Further information & Booking:
info@subjectrevolution.co.uk



CPD OPPORTUNITIES:

Spring Term 2017

<http://www.babcock-education.co.uk/idp/courses/bookings/>

Courses and meetings available this term include:

Subject Leader briefings

Supporting Teacher Assessments

Improving Maths results at KS2

Fair and Equal Intervention Programme Training

Teaching and assessing maths through rich learning experiences (various year groups)

Success@Arithmetic:Calculation

Please see the website for more information and to book a place:
www.babcock-education.co.uk
www.jurassicmaths.com



Small group study sessions for Cambridge STEP I, II and III exams

Anna Rayner - Cambridge STEP Exam Tutor is currently running 3 Hour STEP Maths sessions on Saturday mornings at The King's School Ottery St Mary EX11 1RA

If you have students who would be interested in attending one of her sessions, or just for more information, please contact Anna Rayner:

annarayner2@gmail.com



The emphasis in these meetings is on teaching and learning, rather than examination board updates. Many of the meetings will focus on secure mocks and the analysis of their results.

The meetings are free to attend and refreshments are provided. You can book a place on the Training webpage - where you can also brief details of the agenda, or you can email mathsevents@pearson.com, giving your name, centre name and centre number and the meeting you'd like to attend.

Local Mathematics Collaborative Network spring term meetings:

Event code	Date	Time	Location
15BNM159/01	28th February	1.30 - 4.00pm	Uffculme, Devon
15BNM161/01	1st March	2.30 - 4.30pm	Bristol
15BNM163/01	8th March	3.30 - 5.00pm	Christchurch, Dorset
15BNM164/01	9th March	2.00 - 4.00pm	Truro