

One Day Teacher Courses

GCSE Mathematics

London Manchester & York - November 2009 - March 2010

Course list

How to be a Brilliant GCSE and KS3 Mathematics Teacher

Teaching GCSE Mathematics at Foundation Tier

Teaching GCSE Mathematics at Higher Tier

Looking at Functional Skills both GCSE
embedded and stand alone

Looking at the New National Curriculum
for Key Stage 3

Working with able, talented and gifted
Mathematics students

TEACHERS FIRST

There's always something
new to learn

How to be a Brilliant GCSE and KS3 Mathematics Teacher

Course Features

The course has been specifically designed for teachers looking for a new approach to the teaching and learning of Mathematics at KS3 and KS4. The focus will be on ideas and methods to stimulate and enthuse learners through a variety of activities that have been tried and tested in the classroom. The workshop offers a wide range of practical classroom solutions to the problem of motivating and improving performance in students of differing abilities. The focus will be on *'bringing maths to life'* and creating an *'activity based learning environment'* that leaves no hiding place for students in the classroom whether *'low achievers'* or *'gifted and talented'*

Delegates will receive a file and/or CD containing detailed notes of the course.

Tutor: Alan Catley

After graduating in Mathematical Sciences at Newcastle University, Alan has been teaching in the North East of England for over 30 years. A keen athlete, cyclist and fell-walker, he also has 10 years experience as an examiner. In recent years he has developed an international reputation for delivering well-received INSET days for teachers designed to help them make constructive use of a wide variety of resources.

Venues and dates

London, Tuesday 10 November 2009

York, Monday 30 November 2009

Course fee £195 plus VAT

Programme:

- 10.00am:** What are the ingredients of a successful Mathematics teacher?
A selection of simple activities from basic number work, data handling and shape, space and measures will be used to illustrate a variety of ways of engaging reluctant learners and also stimulate the more able.
- 11.15am:** Morning break
- 11.30am:** Using ICT to keep learners focussed on the Mathematics
Simple but highly effective uses of Excel, selected software and web-based resources projected to the front board
- 12.15pm:** Introducing Algebra without scaring them off
Supporting the less able to appreciate what it's all about and also setting challenging investigations for the more able.
- 1.00pm:** Lunch
- 2.00pm:** Data Handling and Probability
Teaching and learning using 'real' data makes for a more meaningful (and 'fun'!) experience for both learners and teachers.
Effective learning rather than tedious repetition of seemingly pointless tasks!
- 3.45pm:** Fun ideas to enhance understanding of shape and space
Transformations, Circles, Pythagoras and Trigonometry – examples of interactive lessons that leave 'no hiding place for the learners' and encourage peer support
- 3.30pm:** Plenary and discussions
- 3.45pm:** Day ends

Teaching GCSE Mathematics at Foundation Tier

Course Features

This intensive one-day course will focus on the Foundation Tier and will investigate a range of strategies and resources that can be used to motivate lower achievers and to improve results.

Throughout the day, consideration will be given to ways in which the basic skills can be consolidated using a variety of teaching and learning styles, and how to help students to prepare for their GCSE examination and to achieve their potential. We will use a variety of revision activities which you can use in the classroom which will engage pupils and encourage them to read clearly and break down questions.

Delegates will receive a file and/or CD containing detailed notes of the course

Tutor: Samantha Burns

Samantha is a highly experienced teacher who has taught in a variety of schools. She successfully led a mathematics Department and is now an Advisor for Secondary Mathematics. Through her advisory and consultancy roles she has worked with many teachers to induct them into Mathematics. Samantha is used to and familiar with leading a team of professionals by setting high standards in her own classroom.

Venue and date

London, Tuesday 24 November 2009

Course fee £195 plus VAT

Programme:

10.00am:	Introduction and Overview of GCSE procedures
10.15am:	Being an Examiner Looking at how examinations are marked. Ensuring that you are aware of the latest requirements from the boards and how best to communicate these rules to pupils. The focus will be upon pupils losing the least marks from non mathematical mistakes.
11.00am:	Number This session will focus on interactive activities designed to develop confidence with mental and written arithmetic. It will investigate ways to identify and remediate some common misconceptions when working with fractions and decimals.
11.30am:	Morning refreshments
11.45am:	Algebra In this session the focus will be on the understanding and use of symbols as algebraic variables, the formulation and use of algebraic expressions, formulae, equations, and inequalities. Developing the understanding of sequences, functions and graphs. Interpreting graphical information. Investigating the quadratic function and solving quadratic equations.
12.45pm:	Lunch
1.45pm:	Handling Data Ways of using real data to investigate the techniques of data handling. Processing and representing data, including diagrams and calculations. Interpreting and discussing the results. Developing the concepts of probability
2.30pm:	Afternoon refreshments
2.45pm:	Shape and Space Developing the understanding of angle and applications to problems involving triangles and circles. Problem solving involving area and volume. Ways of investigating transformations
3.45pm:	Plenary and discussion

Teaching GCSE Mathematics at Higher Tier

Course Features

This intensive one-day course will focus on the Higher Tier and will investigate a range of strategies and resources that can be used to motivate and challenge students taking Higher Tier GCSE.

Throughout the day, consideration will be given to ways in which the ideas can be suitably differentiated to accommodate the range of abilities, using a variety of teaching and learning styles. We will look at how to help students to prepare for their GCSE examination and how to use a variety of innovative revision techniques.

Delegates will receive a file and/or CD containing detailed notes of the course

Tutor: Samantha Burns

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Venue and date

London, Friday 4 December 2009

Course fee £195 plus VAT

Programme:

10.00am:	Introduction and Overview of GCSE procedures
10.15am:	Being an Examiner Looking at how examinations are marked. Ensuring that you are aware of the latest requirements from the boards and how best to communicate these rules to pupils. The focus will be upon pupils losing the least marks from non mathematical mistakes.
11.15am:	Number This session will focus on interactive activities designed to develop and consolidate number skills. Developing techniques for working with percentage increases and decreases. Working with indices, using standard form with and without a calculator, and working with surds
11.30am:	Morning refreshments
11.45am:	Algebra Developing a solid understanding of working with algebraic expressions, formulae, equations and inequalities. Working with algebraic fractions. Developing the understanding of sequences, functions and graphs. Investigating the quadratic function, and solving quadratic equations using factorisation, completing the square and the quadratic formula. Transformation of functions.
12.45pm:	Lunch
1.45pm:	Handling Data Ways of using real data to investigate the techniques of Data Handling. Processing and representing Discrete and Continuous data, including Diagrams and Calculations Histograms. Interpreting and discussing the results. - Developing the Concepts of Probability
2.30pm:	Afternoon refreshments
2.45pm:	Shape and Space Working with Circles and Triangles. Similarity and use of Scale Factor. - Congruence, and Applications with Triangles. - The Circle Theorems. -Trigonometry, including the Sine Rule and Cosine Rule
3.45pm:	Plenary and discussion
4.00pm:	Day ends

Looking at Functional Skills both GCSE embedded and stand alone

Course Features

Functional Skills may no longer be a hurdle to GCSE but it is embedded in the programme of study at both Key Stage 3 and Key Stage 4. It is intended that the new GCSE Mathematics specifications will set many of their questions in a functional context. Hence all pupils will need to be able to apply their mathematical skills in a contextual setting if they are to be successful at GCSE. In addition the new diplomas and apprenticeships require the stand alone functional qualification. A school's success rate at functional may also be recorded on the new proposed Report card so it's importance cannot be over emphasised.

This course will examine the published functional standards and then discuss how they can be taught stand alone or embedded within vocational areas.

The sessions will draw upon the findings of the extensive pilot which is now in its third year.

Samantha has been involved in the pilot from the beginning so already has a vast amount of knowledge about functionality.

Delegates will receive a file and/or CD containing detailed notes of the course

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Venues and dates

York, Tuesday 9 February 2010

London, Tuesday 9 March 2010

Course fee £195 plus VAT

Programme:

- 10.00am:** What is Functional Mathematics
A concise description of the standards, looking at both the skills and the content. Looking at the theory of how these skills will be assessed and how pupils can show mastery. Considering how as teachers we can scaffold the learning for building skills and then set rich tasks so that pupils can show mastery at the required level.
- 11.15am:** Morning Refreshments
- 11.30am:** Functional Mathematics in the Classroom
There will be opportunities to look at different models undertaken by schools. We will discuss the merits and issues with each model. The session will also look at a variety of activities best suited to deliver functional mathematics. There will be opportunities to be creative in the classroom and consider how different activities could fit into your school or establishment. This will be a very active session with time to try many different activities.
- 1.00pm:** Lunch
- 2.00pm:** Embedding Functional Mathematics
The afternoon will be given over to different activities which can be used by specialists and non specialist alike to ensure that functionality is delivered. We will look at activities which can be embedded into vocational schemes of work and also into GCSE maths schemes. The emphasis of these activities will be context and assessing in context.
- 3.00pm:** Assessing Functionality
The latest models of assessment will be discussed and there will be an opportunity for delegates to compare boards and to ask questions.
- 3.30pm:** Plenary

Looking at the New National Curriculum for Key Stage 3

Course Features

Processes are here, SATs have gone, pupils still need a level. Are you confident in teaching through processes and can you fine level pupils? If you need a little help (or a lot) then this new course is for you.

This course is being written in response to all the changes facing the Key Stage 3 teacher. You should now be delivering a lesson which involves a focus upon the key processes and you may also have been asked to address PLTs. These lessons need to still cover the same maths content as before but should be more active and lead to developing lifelong learning skills.

The morning will focus upon delivering a stimulating curriculum whilst the afternoon will focus upon assessing the pupils' progress through this curriculum.

Delegates will receive a file and/or CD containing detailed notes of the course

Tutor: Samantha Burns

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Venues and dates

Manchester, Wednesday 10 February 2010

London Monday, 15 March 2010

Course fee £195 plus VAT

Programme:

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| 10.00am: | Understanding the Key Processes
A further exemplification of the key processes with an opportunity to map a key process to an activity and also to build an activity around a key process. There will also be discussion of PLTs and how we can also map these into unit plans. |
| 11.15am: | Morning Refreshments |
| 11.30am: | Possible models for delivering the new Curriculum – Developing ideas into practice
There will be opportunities to look at different models undertaken by schools. We will discuss the merits and issues with each model.
The session will also look at a variety of activities best suited to delivering the new process led curriculum. Particularly: <ul style="list-style-type: none">· looking at opportunities to be creative in the classroom· considering Cross Curricular ideas· using ICT to enhance the new curriculum |
| 1.00pm: | Lunch |
| 2.00pm: | Assessing Pupils Attainment Post Sats
Assessing Pupils progress is high on the agenda and post compulsory SAT examinations will become more prominent. Here we will discuss the theory and practice behind APP and how you can develop it into your planning. Additionally we will look at level statements and fine levelling, ensuring that all teachers can effectively use these markers and so give accurate pupil attainment levels. |
| 4.00pm: | Day ends |

Working with Able, Talented and Gifted Mathematics Students

Course Features

Working with students who are able and talented in mathematics provides a challenge to teachers and schools. There is often a dilemma between enrichment and extension activities. This practical, one-day workshop will provide resources for working with small groups of students within Key Stages 3 and 4. As well as providing enrichment, the resources are designed to enable students to develop an insight into mathematics beyond the school curriculum. The day will provide an opportunity for teachers to work through some of the activities.

Delegates will receive a file and/or CD containing detailed notes of the course

Tutor: Professor John Berry

The day will be led by Professor John Berry who is an experienced teacher, author and examiner. John is Professor of Mathematics Education at the University of Plymouth and A-level Mathematics at a Cathedral School and leads workshops for gifted and talented pupils.

He has taught Mathematics, Mechanics and Decision Mathematics at many levels and has written several books to support the teaching and learning of Mathematics and Decision Mathematics. His latest publications include the *Do Brilliantly at* Revision guides for AS and A2 Mathematics, published by Collins Educational. He is also co-author of the new series of Student Workbooks for AS and A2 Mathematics (Philip Allan Updates).

Venue and date

London, Wednesday 24 February 2010

Course fee £195 plus VAT

Programme:

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| 10.00am: | Introduction and Issues
This session will introduce the day and discuss different methods of working with able, talented and gifted mathematics students and will explore the meaning of gifted and talented mathematicians |
| 11.00am: | Morning Refreshments |
| 11.15am: | Identifying able, talented and gifted mathematics students
Each school now has to provide a register of its gifted and talented pupils and this is often done using test scores. Other strategies and methods of selection which ensure that very talented pupils who do not necessarily perform well in 'tests' are introduced in this session |
| 12.00pm: | Investigations and the more able student
A look at simple and highly effective tasks for identifying mathematics as the ' <i>science of patterns</i> ' and strategies for developing mathematical thinking which are important for future mathematicians! |
| 12.45pm: | Lunch |
| 1.30pm: | An Exemplar Activity
This session will be a practical session where delegates will be able to work through an activity which has been developed and run successfully as a one day student workshop |
| 2.45pm: | Afternoon Refreshments |
| 3.00pm: | A CD of Resources
Each delegate will receive a CD containing a range of resources for using with gifted and talented pupils. This session will briefly describe the contents of the CD and how they might be used |
| 4.00pm: | Day ends |

Teacher Booking Form

Telephone us on 0844 800 5292 or 0844 800 5298

Fax us on 0844 800 5295

E-mail us at bookings@teachersfirst.org.uk

Or return the booking form to us at the address given below. We will then confirm your booking and issue an invoice. Payment is required 2 weeks before the date of the workshop.

Course details will be sent out to you about 10 days before the course, after the receipt of payment. Please telephone us if you have not received them by this time.

Further information on this and other events can be found on our website www.teachersfirst.org.uk

Teacher Courses	Venue	Date	Course fee per head (plus VAT)	Number of places required
How to be a Brilliant GCSE & KS3 Mathematics Teacher	London	10/11/09	£195	
	Manchester	30/11/09	£195	
Teaching GCSE Mathematics at Foundation Tier	London	24/11/09	£195	
Teaching GCSE Mathematics at Higher Tier	London	04/12/09	£195	
Looking at functional skills both GCSE embedded and stand alone	York	09/02/10	£195	
	London	09/03/10	£195	
Looking at the New National Curriculum for Key Stage 3	Manchester	10/02/10	£195	
	London	15/03/10	£195	
Working with able, talented and gifted mathematics students	London	24/02/10	£195	

Invoice details

Delegate _____

School / College _____

Address & Postcode _____

Telephone _____ Mobile _____

Office e-mail address _____

Delegate e-mail address _____

Please note that all confirmation invoices will be addressed to the Finance office at your school/college unless you state otherwise.

Please return to: Teachers First LLP, PO Box 659, Stockport, SK2 7WF. Teachers First reserves the right to amend the programme where circumstances dictate.

