



# Greater Peterborough Teaching School Alliance



## Teacher Subject Specialism Training at Arthur Mellows Village College Secondary Maths (Key Stage 4)



Are you a qualified teacher delivering secondary Maths in addition to your main specialism?

Are you from a different phase of education but would like to be able to teach secondary Maths?

Have you taken a career break and wish to return to teaching?

If you have answered 'yes' to any of the above then this programme could be for you.

Professional accreditation FREE training to schools and participants. Masters credits can be gained.

To register your interest and get an application form then please contact:  
Roger Watson: [tsst@arthurmellows.org](mailto:tsst@arthurmellows.org) Tel: 01733 252235

Please note places are limited and will be offered on a first Come, first served basis with a maximum of 20 places (following successful application completion).

For further details please see over

**This free training programme is open to all qualified teachers who are teaching outside of their specialism or teachers without qualified teacher status teaching in academies. For full participant eligibility please see the following website for details:**

**<https://www.gov.uk/guidance/teacher-subject-specialism-training-courses>**

**Participating teachers will receive a training programme that offers a range of support beyond the core sessions.**

**The programme covers the following Maths topics:**

### **Structure**

**The course consists of eight face to face sessions (8 x 3 hours).**

**Participants are expected to be motivated and driven, using the resources previously provided and bringing ideas or resources to sessions.**

**Participants will have a lesson observation at the beginning and end of the course to determine areas of focus and development and evidence of progress.**

**Ideally, participants are expected to work with a mentor in school to support the reflective elements and subject knowledge gaps.**

**During each sessions, participants will be expected to work in small groups to deepen understanding, knowledge and pedagogy.**

**After each session, participants may have some private study to ensure they have the necessary subject knowledge.**

**Each session will consist of a combination of lectures, discussion, practice questions, peer tutorial, good practice, videos, technology demonstrations, students misconceptions or assumptions and 'tricks' for teaching all ability students.**

### **Session 1: Introduction - Why and how to teach Maths**

How do students learn? What do students say about their learning? What makes a good learning environment in the Maths classroom? How to be efficient in planning and assessing. What resources are available?

### **Session 2: Algebra**

Why do students dislike algebra? How to develop and link algebraic topics. Teaching algebra for all levels. Techniques to teach algebra to all students and all abilities.

### **Session 3: Number**

Techniques to teach fractions, decimals, percentages and the links between them. Numeracy skills and developing student skills to understand word questions. Resources and best practice.

### **Session 4: Geometry**

The use of technology in teaching Geometry. Student misconceptions in Geometry, especially circle theorems. How to teach vectors to high ability students. Formulae for area, volume of shapes.

### **Session 5: Data Handling**

Teaching data in an engaging and meaningful way. Teaching probability to high ability students. Pitfalls and student misconceptions identified and discussed.

### **Session 6: Algebraic and Geometric proof**

Discovering the love and need for proof in Maths. How to give students the confidence to prove and question concepts.

### **Session 7: Geometry and use of Technology in lessons**

How Technology benefits students and encourages them to become independent learners. How Technology can demonstrate even the more complex topics. How Technology can be incorporated and used in lessons. Hands on practice of available Technology.

### **Session 8: Number and Examination preparation**

Preparing students for external examinations. Best way to revise and revisit topics. Tricks and tips to ensure students maximise marks. Identify anomalies and common errors students make in exams.

## What are the benefits:

- Schools will enhance their provision for Maths by developing their teachers' knowledge and skills.
- Participants will have a personalised plan both during the course and afterwards to ensure continual Professional Development.
- Participants will continue to develop their knowledge and understanding and to share best practice and resources, technology and tasks.
- Participation will encourage Mathematical discussion and language beyond the time frame and scope of the course.
- Participants will have access to a variety of resources that provide the challenge and stretch for all students.
- Participants to have an awareness of the Mathematics curriculum and how content is assessed.
- Participants will be brought up to date with the latest demands for the reformed Mathematics curriculum at Key Stage 4.
- Teachers will become more confident and prepared classroom practitioners.

## Course Dates (3:00pm to 6:00pm)

**Session 1:** Wednesday 21 November 2018

**Session 2:** Wednesday 12 December 2018

**Session 3:** Wednesday 9 January 2019

**Session 4:** Wednesday 30 January 2019

**Session 5:** Wednesday 27 February 2019

**Session 6:** Wednesday 20 March 2019

**Session 7:** Wednesday 24 April 2019

**Session 8:** Wednesday 8 May 2019

All sessions take place at Arthur Mellows Village College, Peterborough.

## Facilitators:

Alison Brown and Kevin Gilder

GPTSA Mathematics SLEs

Funding given to schools to either use towards 20 Masters Credits or to use towards release time and support in schools.

Our Mathematics TSST programme is in the process of gaining accreditation by the Joint Mathematical Council (JMC) enabling GPTSA to certificate all delegates with a JMC community accredited award at the end of the course.

If you would like more information or to register an interest for this programme please contact:

Roger Watson [tsst@arthurmellows.org](mailto:tsst@arthurmellows.org) at Arthur Mellows Village College

Tel: 01733 252235.

**Closing date for applications- Monday 12 November 2018.**