# Enhancing a Mathematics curriculum:

## Atomisation, retrieval practice and the beauty of maths

**Friday 5 July, 2019** | St James the Less, 4 Moreton Street, Pimlico, London SW1V 2PS

**With inspiring guest speakers**
**Naveen Rizvi and Tom Bree**

**Research-driven approaches to enhance your curriculum**
**Practical strategies to help students' understanding and recall**

- Get to grips with using retrieval practice as an effective learning aid
- Help your students to fully understand key mathematical concepts by deconstructing the elements and building viable knowledge sequencing
- Focus on curriculum design, with ideas and advice that you can take back to school
- Be inspired to look deeper at mathematical relationships that exist throughout the universe and appreciate the beauty of visual mathematics

All course materials and lunch included

**Prices** (subject to VAT at 20%)
£195 (PTI members)
£295 (non-members)
£145 (second person from same dept.)

**Enquiries:**
events@ptieducation.org
020 3174 2403

Limited early bird places
**Only £145 + VAT**

## This course is for you if:

- You teach Maths at Key Stage 3, 4 or 5
- You would like to further develop your curriculum, using knowledge of the latest educational research and thinking
- You want to find out more about how atomisation and retrieval practice can aid your teaching

# Book now at www.ptieducation.org/events

# Speakers

*Putting you in touch with specialist subject knowledge*

**Naveen Rizvi, Curriculum Advisor, United Learning Trust**
Naveen Rizvi is the mathematics Curriculum Advisor to the United Learning multi academy trust. She creates KS3 instructional materials used by over 35 schools, hundreds of teachers and experienced by thousands of pupils. The resources created use the underlying principles of Direct Instruction and Variation Theory.

**Tom Bree, Geometer and artist**
Tom Bree is a geometer, artist, teacher and writer. He studied geometry at The Prince's School of Traditional Arts. His practical drawing session will first consider the prevalence of the Fibonacci numbers 5, 8 and 13 in the growth of flowers, the construction of the musical octave scale and the cosmology of the solar system. He will then guide teachers in drawing an eight-fold Islamic pattern.

*"Very interesting workshop. Explored ideas that I would never have thought about using in classrooms. Nice challenging activities also."*

- 2018 Maths CPD participant

# Workshops

*The day is led by a practising teacher, ensuring relevance to you and your classroom*

***Atomisation: Breaking down your teaching like you have never seen before*** **(Naveen Rizvi)**
In this session, we will go through the process of atomisation in respect to teaching the topic of angles on parallel lines. We will break down the topic being taught into component skills, and plan worked examples and practice exercises to allow the highest percentage of your pupils to understand the concept on the first teaching attempt.

***Do (retrieval) now!*** **(Karl Newton)**
A look at how the King Ecgbert School Maths department use retrieval practice at the start of every lesson. We will explore elements of Doug Lemov's 'Do Now' strategy including techniques for delivery in the classroom and how the KES maths department have adapted this. We shall then expand on these ideas to look at some systematic approaches to retrieval practice taking into account research from educational psychology.

**This day will be led by Karl Newton,** Joint Head of Maths at King Ecgbert School in Derbyshire. Karl has been a Maths teacher at King Ecgbert school for 10 years, yet his classroom practice has changed drastically over the past few years after engaging to a greater extent with educational research. As a head of subject Karl has many roles within the department but is currently focusing on the development of the Y7 and Y8 curriculum.

## Also coming up - Online course

***Free for PTI members***
***£20 + VAT for non-members***

***Two sessions: 3 July | 10 July, 1600-1700***

## Probability

Probably the best probability session south of the North Pole. Engage students in the topic and gain useful teaching resources.