NOTTINGHAM EDUCATION PARTNERS

Strategic School Improvement Project 2: Maths

Making every person count in Maths

SSIF

Tackling misconceptions, collaboration, independent learning and problem solving in Maths

This programme will equip teachers with a practical, research-based, pedagogical toolkit to support four key aspects of student learning in Mathematics – collaborative working, metacognition skills, connecting representations and contents, and effective problem solving. Key misconceptions that students encounter as they navigate different parts of the Secondary School Maths curriculum will inform these four aspects.

The programme involves four half-day sessions. At each session, participants will explore strategies for the four aspects and will have an opportunity between sessions to trial strategies in their classrooms. Every session will include an option for participants to share their classroom experiences.

Session 1: Developing collaborative skills

- Why collaboration fails and why it is worth fostering.
- Factors that contribute to effective collaboration.
- Practical tools to support pupils working collaboratively.

Session 2: Developing metacognitive skills

- What is metacognition and what are its benefits.
- Why pupils find it so difficult to incorporate metacognitive strategies when solving problems.
- Explicit strategies to foster metacognitive skills.

Session 3: Developing a connected understanding

- Using pre-designed sample solutions to support understanding of a concept's structure and relationships between variables.
- Characteristics of pre-designed solutions that enhance learning.
- The benefits of comparing the relative validity of differing solutions.

Session 4: Developing problem solving skills

- 'Getting Started' – strategies to help students interpret problems.
- 'The method' – strategies to identify efficient and appropriate methods.
- 'Written communication' – strategies to communicate methods and solutions effectively.

Facilitated by Sheila Evans from the Centre for Research in Mathematics Education at the University of Nottingham. Sheila is an experienced Secondary Mathematics teacher, university lecturer and researcher. She has authored a textbook for pupils resitting GCSE mathematics.

Dates: Session 1 – 4 October 2018   Session 2 – 6 December 2018
        Session 3 – 30 January 2019   Session 4 – 7 March 2019

Timings: 2.30 – 4.30 pm for all sessions   Venue: TBC

To book please email: katie.felstead@transformtrust.co.uk

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