HOST A TRAINING DAY

Creating Reasoning Habits, Building Problem-Solvers

with *Gareth Metcalfe*

We explore the teaching approaches and routines that will enable all children to develop mathematical reasoning habits. We see how equipment and images promote reasoning; how to reason whilst building calculation skills and how children can learn to look for relationships and spot patterns. We will also consider consistent teaching approaches that will enable all children to grow as flexible, independent problem-solvers.

Cost Option 1

Host school have 5 free places

Host school delegates: £40+VAT or £30+VAT for events of 20+ people

Other delegates: £60+VAT

Minimum of 15 delegates

Plus travel and accommodation expenses. Refreshments provided by host school.

Cost Option 2

£645+VAT for 12-18 delegates

£745+VAT for 19-29 delegates

£895+VAT for 30+ delegates

Plus travel and accommodation expenses. Refreshments provided by host venue. Places can be sold to staff from other schools for £60 per place or costs shared between participating schools.

I SEE MATHS

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or visit: www.iseemaths.com

Continuing Professional Development Standard

National Centre for Excellence in the Teaching of Mathematics

Course Objectives

- To understand the different forms of mathematical reasoning and how to develop the reasoning skills of children of different ages and levels of attainment
- To see how mathematical reasoning skills can be taught and built within all mathematical learning
- To develop a coherent approach to the teaching of problem-solving so all children are supported, challenged and experience success
- To develop consistent, progressive whole-school routines for facilitating reasoning and teaching problem-solving that fit your school context

Overview

In this course we will look at how reasoning can be put at the heart of mathematics. We will see how to facilitate reasoning when children are first learning a concept or using a new method; we consider how practical resources, visual representations and real-life contexts can all be used to develop reasoning; we learn how variation can draw children's attention to patterns or relationships. I will share how the *I See Reasoning* tasks can be used to create these learning experiences. This will help you to establish a consistent approach to the development of reasoning skills, helping to make reasoning thought processes habitual for children.

We will also look at a coherent approach to the teaching of problem-solving. We will look at how to strip back information to lessen the barriers into problem-solving. We will consider how to draw attention to key problem-solving thought-processes and how to prepare coherent sequences of tasks, including how the *I See Problem-Solving* resources can be used to outwork these principles.

'Particular strengths of **I See Maths** are the quality of the CPD offered in terms of subject knowledge, pedagogy and embedding this into classroom practice.'

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