

An Introduction to Bar Modelling and the use of Number Rods for Mathematical Reasoning

With the current national focus on **Singapore Mathematics**, many schools are starting to look at **bar modelling** as a means to improve children's understanding of word problems. The Bar Model approach to teaching is a **distinctive feature of Singapore Mathematics** that effectively bridges the gap between the use of concrete materials and abstract mathematics.

It allows **word problems to be presented in a visual way**, aiding children in their analysis & interpretation of the problem. Known facts and unknowns are represented in a simple picture, and children become equipped with a powerful way to simplify complex problems. **The Bar Model is a key element of the Mastery Curriculum, and is used in the NCETM exemplification documents, as well as many of the materials produced by the White Rose Hub.**

In addition, **Number Rods** are used as a concrete tool to support both Bar Modelling and mathematical reasoning. Using Number Rods successfully allows children to **see and apply the relationships** between number operations, and supports visual understanding of other key concepts such as fractions & ratio. This one day course is designed to help SLT, Maths Leaders, teachers and TAs establish the Bar Model as a powerful problem solving tool in Primary Maths.. The course includes: -

- *Introduction to the Bar Model - the power of concrete & visual representations*
- *Foundations of the Bar Model - Number Rods & the Number Bond Diagram.*
- *Opportunities to play with and explore number relationships and proportional reasoning using Number Rods*
- *Key types of Bar Model: Part/Whole Model & Comparison Model*
- *The use of the Part/Whole Relationship Model to show fact families*
- *Using the Bar Model for word problems across all four operations*
- *Developing the Bar Model as a problem solving tool in Key Stage 1.*
- *Using the Bar Model for Calculation, Ratio and Proportion, and Fractions in Key Stage 2*
- *Using the Bar Model to tackle complex and multilayered problems*

All participants will receive free sample materials from the brand new 'Sense of Number' Bar Model Policy, (an extensive whole school policy for training staff & supporting the teaching of Bar Modelling), along with the chance to purchase the full policy at a substantial discount.



Anthony is an independent and experienced Senior Mathematics Consultant who has been involved in delivering highly effective, quality mathematics training nationwide for the past 15 years. He has worked with the NCETM, & NNS, is a qualified Key Stage 1 Moderator and a regular lecturer for the University of Manchester PGCE course.

Anthony is now very much in demand, speaking regularly at mathematics training events all over the country and writing materials for TTS. He also works as part of 'Sense of Number' to support school cluster training programmes, and in helping to produce a range of highly acclaimed mathematics resources such as Reasoning Cards & Visual Maths Policies.

www.senseofnumber.co.uk

enquiries@senseofnumber.co.uk

Exceptional value high quality CPD -
just **£120** per delegate
Further places at only **£65** per person
(including lunch and refreshments)

Date: Tuesday 27th March 2018

Time: 9:15 – 3:30

Venue: Charford First School

Charford Road,

Bromsgrove, B60 3NH

To book a place or places, please email : head@blackwell.worcs.sch.uk

or call Blackwell First School on **0121 445 1622**