

Maths — No Problem!

Dowding House

Coach & Horses Passage

Tunbridge Wells TN2 5NP

Phone +44 (0) 1892 537 706

MathsNoProblem.co.uk

@MathsNoProblem

facebook.com/MathsNoProblem

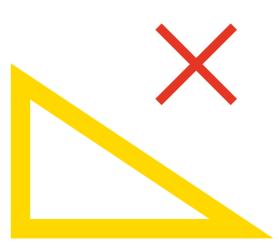
On a mission **to build the confidence** of the nation's maths teachers and learners

ALIGNED WITH THE 2014 ENGLISH NATIONAL CURRICULUM

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# WELCOME TO A REVOLUTIONARY APPROACH TO TEACHING MATHS



# MATHS — NO PROBLEM!

We believe that every child can master an understanding and love of maths with the right kind of teaching and support. Our mission is to improve the standard of maths education by providing world-class textbooks, teaching resources and professional development based on the transformational teaching methods developed in Singapore.

## **OUR JOURNEY**

Maths — No Problem! was created by Dr. Anne Hermanson and Andy Psarianos after their daughter fell behind in maths when transferring schools.

After researching the subject, and following Andy's time spent in Singapore, they found the Singapore method of teaching maths offered the most effective approach available.

# "I WISH I HAD BEEN TAUGHT MATHS THIS WAY AT SCHOOL!"

Maths Leader interviewed for the Implementing Maths — No Problem! In Primary Schools Report, Frederick Sandall May 2016

## **EVIDENCE BASED**



# BASED ON INTERNATIONAL RESEARCH

Maths — No Problem! offers a research-based programme founded on the learning theories of Piaget, Dienes, Bruner, Skemp and Vygotsky and has been refined over the last 30 years in Singapore.

# DEVELOPED BY EXPERTS IN SINGAPORE

Our Primary Maths Series is adapted from the New Syllabus Primary Mathematics Series published by Shing Lee and approved by the Ministry of Education in Singapore. The series consultant in Singapore is Dr Yeap Ban Har who is one of the world-recognised experts in maths teaching.

# FULL ALIGNED WITH THE ENGLISH NATIONAL CURRICULUM FOR MATHS

The Primary Maths Series is adapted for the UK and fully aligned with the English national curriculum 2014 which means the textbooks and lesson plans can be used without re-working.

### **QUALITY ASSURED**



# COMPLIES WITH HIGH QUALITY TEXTBOOK STANDARDS

You can be confident of the pedagogical integrity of the Primary Maths Series because it is one of the few which complies with the UK's High Quality Textbook guidance published by the National Centre for Excellence in Teaching Mathematics.

# USED BY THE MATHS HUBS AND OTHER CENTRES OF EXCELLENCE

Our Primary Maths Series is being used in selected Maths Hubs as part of the Textbook Project run by the National Centre for Excellence in Teaching Mathematics.

### 9 out of 10

schools participating in the project had seen improvements in teacher subject knowledge and pupil attainment.

Source: NCETM Maths Hubs Textbooks Project Year 1 Report, September 2015 "THE LEARNING OF MATHEMATICS AT OUR SCHOOL IN YEAR 1 HAS BEEN REVOLUTIONISED BY THE MATHS NO PROBLEM TEXTBOOKS."

> Mr Andy Barnard-Cousins Maths Subject Leader

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## **REASONS FOR CHOOSING THE SERIES**



## IMROVES THE CONFIDENCE OF NON-SPECIALIST MATHS TEACHERS

Teachers using the Maths — No Problem!

Programme feel more confident teaching maths and can lead to even reluctant maths teachers developing a love of teaching the subject.

# EQUIPS PUPILS WITH MATHS SKILLS FOR LIFE

The programme uses a collaborative, child-centred approach, which equips all pupils with the fluency, thinking skills and resilience to apply their knowledge to different mathematical problems. The result is that children approach maths with greater confidence and enjoyment, developing the skills that will assist them throughout their lives.

## **72%**

of teachers using
Maths — No Problem!
said they felt VERY or
REASONABLY confident
teaching maths using
a mastery approach,
compared to only 30% of
primary school teachers
surveyed in England.

**Source:** Research of English Primary Teachers carried out by Schoolzone October 2015

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### KEY FEATURES OF THE APPROACH

Maths — No Problem! offers a maths teaching programme based on the model developed in Singapore. It incorporates the use of concrete aids and manipulatives, problem solving and group work. With a focus on teaching maths for mastery, the programme is designed to improve the maths confidence of both teachers and learners.

#### **PROBLEM SOLVING**

Lessons and activities are designed to be taught using problem-solving approaches to encourage the development of higher-level thinking.

#### TEACHING FOR MASTERY

The whole class work through the programme of study at the same pace and ample time is spent on topics in order to deepen understanding and master concepts. Ideas are revisited at higher levels as the curriculum spirals through the years.

#### **VARIATION**

The questions are carefully varied by experts to encourage pupils to think about the maths. Rather than provide mechanical repetition, the examples are designed to deepen pupils' understanding as they progress through the topic and to enable teachers to uncover any misconceptions.



#### **CORE COMPETENCIES**

The focus is on working with pupils' core competencies and intelligences to develop their relational understanding, based on Richard Skemp's work.

# DIFFERENTIATED INSTRUCTION

Tasks and activities are designed to be easy to enter while still containing challenging components. This allows struggling learners to attain the desired outcome while providing suitable challenge for advanced learners.

#### **CPA APPROACH**

Based on Jerome Bruner's representations, new concepts are learned initially using concrete examples, such as counters. Pupils then progress to drawing pictorial representations before using more abstract symbols such as the equals sign.

### WHY SINGAPORE MATHS?



Singapore has become a "laboratory of maths teaching" by incorporating established learning research based on the theories of Piaget, Dienes, Bruner, Skemp and Vygotsky, into a highly effective approach which has been tested and refined over the last 30 years.

Since implementing this method of teaching in the 1990s, Singapore has seen tremendous improvements in its education system and is now at the top of international rankings such as TIMSS (Trends in International Mathematics and Science Study) and PISA (Programme for International Student Assessment) for mathematics.

Singapore has become a laboratory of maths teaching.

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## WHAT'S INCLUDED IN THE PROGRAMME

PRIMARY MATHS
SERIES TEXTBOOKS
AND WORKBOOKS

ONLINE LESSON PLANNING

ONLINE VIDEO TRAINING

ASSESSMENT PAPERS

PARENT SUPPORT



The textbooks provide an expert framework which supports teachers' subject knowledge and pedagogy. By having a researched learning sequence teachers can spend more time planning how to teach rather than what to teach.

The textbooks provide the focus for group work while the workbooks are for pupils to practice thinking and apply concepts independently, both during the lesson or as homework.

"IT PROGRESSES SO WELL OVER EACH LESSON. THE CHILDREN HAVE REALLY TAKEN TO IT."

Twitter - Miss M @missmccracken



Our online Teacher Guide provides a step by step guide on how each lesson should be conducted and can be accessed 24/7.

- Learning objectives and schemes of work mapped against the national curriculum
- How to approach each lesson and the resources required to teach that lesson
- Textbook and workbook answers
- Opportunities for formative assessment
- Ideas for differentiated activities.



Our Video Library provides over 20 hours of video to provide inspiration and act as a reminder of best practice. The videos can also be used to support professional development, professional learning communities and individual lesson planning.

- Dr Yeap Ban Har's complete intensive training course for teachers
- Handy video guides and teaching tips
- Insightful case studies of UK teachers sharing their experience
- Thought leadership videos to help support change
- Footage of the Primary Maths Series being taught in UK classrooms.



Based on the 2016 SATs format, each set contains arithmetic and problem-solving tests which have been trialled in English schools.

Fully aligned to the 2014 English national curriculum, the papers test pupils' mathematical fluency, reasoning and problem-solving skills in the middle and at the end of the school year.



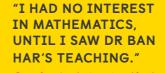
It's important to engage parents in the change and to help those parents who want to support their children at home.

That's why we provide a series of videos to help explain and guide parents when implementing our programme. Schools can use these in parent workshops or publish them on the school website, for parents to get access when needed.



"THE CHILDREN
AND STAFF LOVE
MATHS AND ARE
EXCITED TO
TEACH/LEARN.
EVEN THE PARENTS
CAN SEE A
DIFFERENCE IN
THEIR CHILD'S
ATTITUDE
TOWARDS MATHS
IN JUST A FEW
MONTHS. WE
LOVE IT!"

Y2 teacher Yorkshire Ridings Maths Hub



uote from Leader interviewed for the Implementing **Maths — No Problem!** in Primary Schools Report, Frederick Sandall May 2016

or for a FREE taster ring +44 (0) 1892 537 706





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## **PROGRAMME SUPPORT**



Teaching for mastery requires new approaches to resources, planning and teaching methods, which is why we will support you with outstanding CPD to guide you throughout the journey. When building a case for the programme, it is vital to consider and plan ongoing training and development.

#### LEADERSHIP EVENTS

For schools and subject leaders responsible for raising standards of maths teaching at their school, our leadership conferences provide inspiration from internationally acclaimed speakers and practical advice from UK teachers leading the revolution in maths teaching.



# SCHOOL TO SCHOOL SUPPORT

We can put you in touch with a school, some of whom open their doors to other teachers, so that you can see how the programme works in practice. Many of the NCETM's Maths Hubs are also using our Primary Maths Series and are more than happy to share their experiences and tips to schools considering the programme.

"THE RANGE OF SPEAKERS
WAS EXCELLENT. THE
TOPICS COVERED AND
THE PANELS WERE GREAT
- THE OPPORTUNITY
TO ASK QUESTIONS
AND LISTEN TO OTHERS
QUESTIONS AND CONCERNS
WAS INVALUABLE."

Head of KS1, Leadership Conference

- Save the date
  LEADERSHIP CONFERENCE
  Wednesday 17 May 2017
- To find out more and book your space go to mathsnoproblem.co.uk/events

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### SUPPORT AND CPD

#### SCHOOL INSET DAYS

Inset days are a great way of introducing the principles to the whole staff and other stakeholders such as governors. We provide full-day insets as well as half-day tune up sessions. Our standard inset days typically cover the basics of the approach or we can tailor inset days to meet your specific requirements, for example a session on the use of bar models.

# TEACHING MATHS FOR MASTERY ESSENTIALS

Our ESSENTIALS courses explore the theories and principles of Singapore Maths. They offer a great mix of evidence-based pedagogy and practical activities which bring the approach to life. If you are a maths coordinator looking to introduce the principles to your head (or vice versa), attending an ESSENTIALS training course together is a good start.

# IN-DEPTH MATHS FOR MASTERY COURSES

These courses are typically run by our Singaporean consultants and provide a more in-depth exploration of the concepts used in the Primary Maths Series. When implementing the programme, we recommend that at the very least, the school's maths coordinator and a senior leader should both attend an IN-DEPTH course. The more teachers who have the opportunity to attend an IN-DEPTH course, the more value the school will gain from the Primary Maths Series.

# TEACHING MATHS FOR MASTERY SPECIALIST COURSES

We offer SPECIALIST training in specific subjects such as bar modelling, differentiation, fractions and many more. These one-day courses can be taken by anyone who wants to learn more about a specific method within Singapore Maths.

"THIS WAS THE HIGHEST
QUALITY TRAINING I'VE
RECEIVED IN MY 13 YEAR
TEACHING CAREER, DR
YEAP BAN HAR WAS TRULY
INSPIRATIONAL. HE IS A
FANTASTIC CHAMPION FOR
MATHS AND HIS PRESENTATION
WAS WITTY, MEMORABLE
AND PERFECTLY PITCHED."

Headteacher, London Course



- See our calendar of events and courses at mathsnoproblem.co.uk/events
- or email training@mathsnoproblem.co.uk

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