

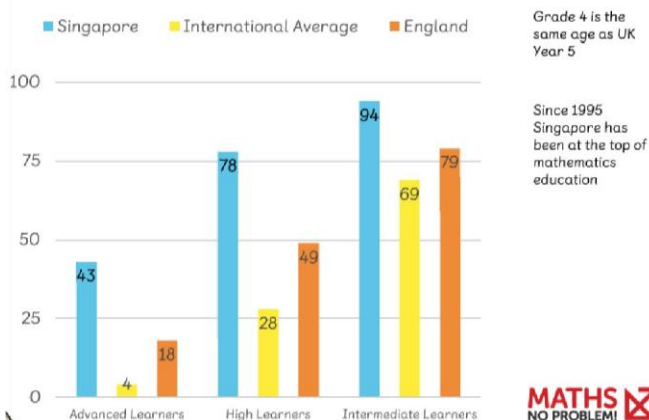
An Introduction to Maths No Problem

MATHS
NO PROBLEM! 

At Kessingland Church of England Primary Academy, we believe that every child can master an understanding and love of Maths with the right kind of teaching and support.

To help us achieve this, in October 2018 we introduced a scheme of work called *Maths No Problem* which is based on 'The Singapore Method'. The table below demonstrates the fantastic mathematics results in Singapore against the rest of the world.

TIMSS Benchmark 2011



What is Maths No Problem?

Instrumental Understanding vs **Relational Understanding**
(learning by rote) vs (exploration and questioning)

Problem solving needs to be at the heart of the curriculum to ensure we help children to perform at a high level.

Teaching Styles and Progression

***Concrete** (enactive/hands on)

***Pictorial** (Iconic/models and pictures)

***Abstract** (symbolic/symbols and numbers)

Working with pupils core competencies

Problem solving is at the heart of mathematics

The focus is *not* on rote procedures, rote memorisation or tedious calculation but on relational understanding.

Pupils are encouraged to solve problems working with their core competencies, in particular:

- 1 Visualisation
- 2 Generalisation
- 3 Make decisions



How lessons are taught

Concepts merge from one chapter to the next. Chapters are broken down into chunks called lessons.

Lessons typically are broken into three parts and can last one or more days.

Pupils master topics before moving on.



The three parts to a lesson are:

- 1 Anchor task — the entire class spends a long time on one question guided by the teacher
- 2 Guided practice — practice new ideas in groups guided by the teacher
- 3 Independent practice — practice on your own

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Maths

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To help us achieve this, in October 2018 we introduced a scheme of work called *Maths No Problem* which is based on what is called 'The Singapore Method'. The core themes of Maths No Problem are that pupils are taught key skills in a logical sequence with concrete, pictorial and abstract representations all used to support the introduction of new learning. Additionally, pupils are encouraged to reason about their learning by exploring and explaining their methods in greater detail. This is a central theme in Singapore Maths where the learning is focussed on achieving mastery rather than moving on to new concepts too quickly.

Click on the link below to find out more about Singapore Maths.

[What is Singapore maths?](#)

The link below shows a series of videos which will be useful and important when supporting your child with Maths at home. The videos cover the seven topics:

- Fundamental idea
- Number bonds
- Subtraction
- Mental calculations
- Multiplication
- Long division
- Bar modelling

[Parent videos](#)

Please visit our school website to find out more information about Maths No Problem and watch videos which will help you support your child's learning at home.

<http://www.kessingland.dneat.org/mathematics/>

What is the impact of Maths No Problem?

Children will have a greater conceptual understanding of number and calculation. They will be able to visualise and generalise more readily due to a more in-depth understanding.

Struggling learners will be fully supported through access to concrete equipment and use of visual models to support their understanding (94% of grade 4 learners on Singapore at 'intermediate').

Confident learners will be challenged through exposure to unfamiliar problems, development of reasoning skills and exploring multiple ways to manipulate numbers and solve problems (43% of grade 4 learners in Singapore at 'advanced' and this rises as the children get older, everywhere else it declines substantially).

All learners will access teaching of content which matches the expectations of the 2014 National Curriculum in England and be supported further if needed, in order to access this. The resources match the expectations for formal written methods set by the government, alongside greater understanding (in order to reach 'mastery').

Further Information:

If you wish to discuss your child's learning, please make an appointment with their Class Teacher in the first instance. Alternatively, Miss Eggleton, our Maths Lead, is always happy to talk about Maths No Problem and the Mastery Approach.