



11 July 2018

Dear Parents

I am writing to inform you of a change that is due to take place next academic year in relation to the teaching of Mathematics within school. Previously, children have been streamed into two groups for Mathematics; a lower set and an upper set. From September, all children in school will be taught by their class teacher for Mathematics, in their normal class grouping. This is a decision that has been made following considerable discussion amongst all staff and significant research. The decision to no longer stream children, is much more conducive to the school's approach to teaching Maths mastery and equipping children with a Growth Mindset approach to their own learning.

What is a Maths mastery approach?

Teaching for mastery in Maths is based on the principles of the Shanghai approach towards teaching Mathematics. Shanghai is renowned for its high quality teaching and attainment in Mathematics; with China, Singapore and Hong Kong consistently being at the top of PISA (Programme for International Student Assessment) Tables. Much recent educational research in England has focused on the Shanghai approach which is now endorsed by the Department for Education.

A Maths mastery approach is the expectation that all pupils will gain a deep understanding of the maths they are learning; this is achieved by keeping the class working together whilst addressing the needs of all pupils to master the curriculum, and for some to gain greater depth and proficiency. To ensure all pupils can achieve to the highest standard, pupils spend far longer on mathematical concepts and all children use a range of manipulatives and representations to help develop a secure understanding. Children who grasp concepts more quickly are given opportunities to deepen their knowledge and improve their reasoning skills rather than accelerating on to new curriculum content. Reasoning and problem solving are central to ensure pupils understand methods and concepts, rather than just learning to repeat routines.

A Maths mastery approach is something that many schools, including Meopham have been implementing. Miss Dean, who joined the school in January 2017, brought with her a wealth and knowledge of this approach. As the school's Mathematics Subject Leader she has been instrumental in taking a lead within this area of teaching and learning; she is a Maths Mastery Specialist Teacher, having completed a programme of study this academic year. Miss Dean is one of only 10 Maths Mastery Specialist Teachers within Kent and Medway.



Throughout this academic year, Miss Dean has delivered a number of professional development sessions to both teaching and support staff on the principles and practices of a Maths mastery approach, which have been implemented across the school. Next academic year, Miss Dean will be completing a professional development visit to Shanghai, where she will be able to further support the development of this approach within school, through her first-hand experience.

Why is setting being removed?

The removal of setting next academic year will enable a Maths mastery approach to be used to its full potential. Within school, setting in Mathematics is something that has been discussed amongst teaching staff for a number of years, as we have professionally questioned its effectiveness in both progress and confidence for all learners. With the introduction of a Growth Mindset approach at school over the last 18 months, setting is also something that contradicts the fundamental values of having a Growth Mindset. Setting supports a Fixed Mindset view, where people believe that qualities such as intelligence or talent, are simply fixed traits, e.g. "I'm no good at Maths" (lower set thinking) or believe that talent alone creates success, without effort, e.g. "I'm really great at Maths" (top set thinking). We have focused on promoting, encouraging and teaching with a Growth Mindset approach within school, supporting children with the understanding that attainment is not pre-determined, based on a notion of fixed intelligence, rather that improvements in all areas of the curriculum can be made, with sustained effort and perseverance. To continue with setting, endorses a Fixed Mindset view, which contradicts and undermines our beliefs and values as a school.

Over the years, there have been many debates about the benefits and drawbacks for setting within Mathematics. Research collected from the last 30 years states that setting is detrimental to the learning of middle and lower-attaining learners and has a negative effect on the self-esteem of children in the lower set, as it discourages the belief that attainment can be improved through effort. There are also some more able mathematicians who suffer in the longer term by failing to consistently apply effort when the link between that and attainment are made less clear through streaming.

This academic year, setting was removed in Year 2 and we have evaluated the impact of this, which has been overwhelmingly positive. Children's confidence has greatly increased, as has their progress and attainment, with an increase this year in the number of children securing a 'Greater Depth' understanding in their KS1 SATs. Teachers also have an increased knowledge and understanding of every child as a learner, as they now teach them for all subjects.

What are the advantages of mixed ability classes?

Teachers within year groups will have the opportunity to collaborate to plan and resource high quality lessons that meet the needs of all children, ensuring that all of the curriculum is covered in depth, whilst supporting and stretching pupils as appropriate. More direct teaching and learning time will be available for Mathematics as there will be less time wasted during transition periods and more time available throughout the school day for additional support and input on a particular skill, if needed.



Enjoy, Learn, Aspire

My child is an able mathematician; how will they be challenged?

Reasoning and problem solving are a crucial element of Maths mastery and since the introduction of the new curriculum in 2014, these are areas within school that we have already been focusing on. The new curriculum emphasised the importance of children acquiring a 'Greater Depth' of understanding, rather than being advanced to the next year group's curriculum. Within Maths teaching, those children who grasp concepts rapidly will continue to be challenged (as has already been the position) through rich and sophisticated problems and questioning rather than being accelerated to new content; this ensures a deeper understanding and allows children to make stronger connections between mathematical concepts, from which the children will benefit later on in their education.

My child finds Maths challenging; how will they be supported?

Teachers will continue to differentiate work as appropriate to ensure that all children within the class are able to understand the Maths taught, to the best of their ability. This may be through the use of additional manipulatives and resources or through the support given by adults. Children may also work in intervention groups to help develop and improve understanding. This academic year in Years 5 and 6, additional adults have been used to deliver pre-teaching and post-teaching sessions. In a pre-teaching session, children are introduced to key concepts, ideas and vocabulary prior to a teacher led lesson; this has resulted in increased confidence, understanding and application of mathematical concepts. Post-teaching sessions provide the opportunity for identified children to have additional support and practice with specific topics and mathematical skills. This level of support is something that will continue across the school next academic year.

How can I find out more about this?

In September, Miss Dean will be leading a Maths Mastery information session where you will be able to find out much more on this approach within school and will be able to see first-hand some of the strategies, problems and ways of working that your child will be experiencing as part of their Maths learning next year. We will also be delivering a workshop for parents, directly linked to sharing more information with regards to teaching and learning with a Growth Mindset approach.

Yours sincerely

Miss R Nicholson
Headteacher

