



Mastery in Mathematics at Charlton Kings Infants' School

At Charlton Kings Infants' School we have adopted a 'Mastery' approach to teaching and learning in mathematics.

Our beliefs at CKIS: We believe that ability within mathematics is not fixed. We are developing the mindsets of children and adults alike to promote a positive growth mind-set and an 'I will do this' attitude to mathematics. We believe that through quality first teaching, children learning together and immediate intervention, **all** children have the potential to 'go deeper' and broaden their understanding of mathematical concepts.

Our definition of Mastery: At Charlton Kings Infants' School we have a core set of principles and beliefs for achieving mastery in mathematics. This includes a belief that all pupils are capable of understanding and engaging with mathematics. With good teaching, appropriate resources, effort and an 'I will do this' attitude, all children can achieve and enjoy mathematics.

Mastery is not just being able to use bigger numbers, work faster, memorise key facts and procedures and to answer test questions correctly. Mastery involves knowing why and how. It means being able to use your knowledge appropriately, flexibly and creatively and to apply it in new and unfamiliar situations.

For all maths concepts teachers need to ensure that children are **"challenged through being offered rich and sophisticated problems."** After developing fluency, children need to show that they can apply their knowledge in mathematics and then move on even further to prove they have mastered the concept.

Our mathematics mastery curriculum: In Year 1 and Year 2 we have developed our curriculum to allow teachers and learners to achieve a secure and deep understanding of each mathematical concept. It is designed to give us the opportunity to address small key points individually, ensure that children have a secure and deep understanding of those points before offering the opportunity to 'go deeper' within them. In Early Years, the principles of the EYFS Framework will be followed and there will be the opportunity to explore maths and develop their understanding of mathematical concepts through play based experiences.

Mastery teaching and learning: In every mathematics lesson you will see the following:

- 'Quality first' teaching; tailored to meet the needs of the learners in each class with immediate intervention to address gaps in learning where necessary,
- Resilient learners with growth mind-sets and an 'I will do this' attitude to mathematics, whatever their previous level of attainment,
- Teachers and TAs using high-quality questioning to explore children's understanding and develop it further,
- Teachers making use of misconceptions to further children's understanding of key concepts,
- Teachers using a range of methods to explore key mathematical concepts which appeal to pupils' different styles of learning, employing concrete/pictorial/abstract representations of mathematical concepts,
- Learners being given the opportunity, through careful planning, to 'go deeper' in mathematical concepts,
- Pupils learning together,
- Development of fluency, reasoning and solving.

Anna Maclachlan (Maths lead – Charlton Kings Infants' School)

Credit to: Amy Hodgson (Gloucester Road Primary School)