Church Aston Infant School

Mathematics Policy

December 2021

Telford & Wrekin
COUNCIL

Contents

Date Document Created	Date approved by Governing Body	Date of next Policy Review
January 2014	4 February 2014, 8 March 2016, 21 March 2017, 28 March 2018 and 7 December 2021	December 2025

PURPOSE

The purpose of the policy is to give a clear outline of the important elements involved in teaching and learning mathematics. The policy will provide information to support staff, enabling a broad, balanced, mathematical education that is delivered through a programme that ensures continuity and progression.

OUR VISION

At Church Aston we believe that every child can be a mathematician. Maths can be seen throughout our world, and we endeavour to ensure that children can identify where maths is used and why it is important. We use the range of maths mastery techniques and teaching strategies to encourage children become confident and fluent in their mathematical abilities.

We aim to ensure that all children become fluent in the fundamentals of maths. That they can reason mathematically and can use their maths skills to enable them to solve a range of mathematical problems.

AIMS FOR OUR CHILDREN AT CHURCH ASTON INFANT SCHOOL

· To be confident, fluent mathematicians
· To be able to accurately and rapidly recall number facts
· To make connections and recognise patterns in their learning
· To move between different contexts and representations
· To be confident mathematical thinkers, explaining their reasoning
· To have a deep long-term, secure understanding
· To apply their mathematical skills to all areas of their learning

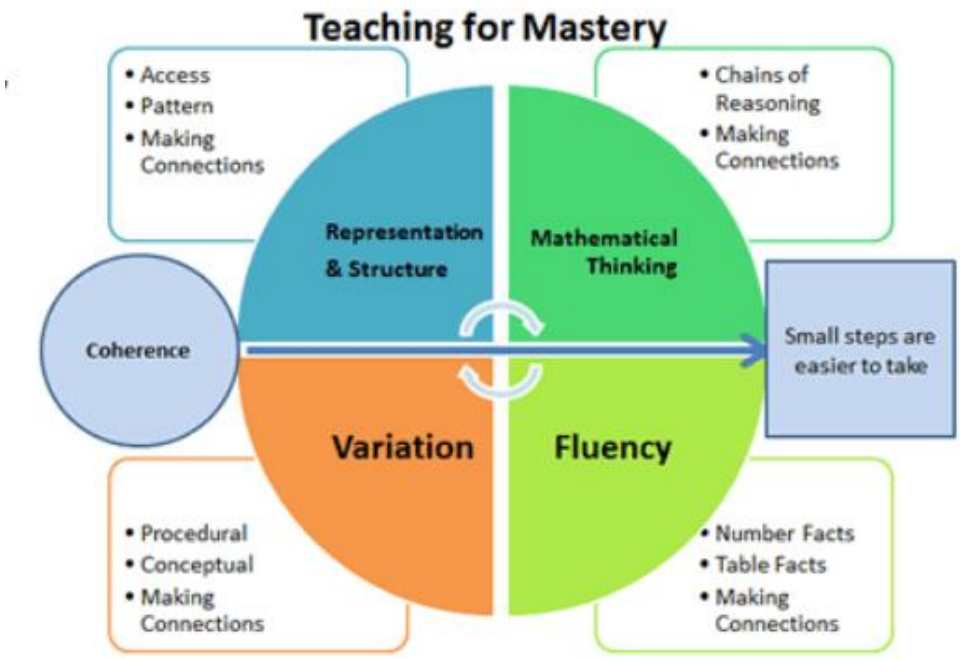
HOW WE TEACH MATHEMATICS IN SCHOOL

Mathematics is a core curriculum area, and we deliver the National Curriculum programmes of study through a maths mastery approach. In September 2018 we joined our local Maths Hub to begin our journey through maths mastery using the professional development resources from the National Centre for Excellence in the Teaching of Mathematics.

We have daily mathematics sessions in which our children are taught through whole class interactive teaching and our focus is on all children working together. We aim to ensure that **all** can master concepts before moving onto the next part of the curriculum sequence, allowing no one to be left behind.
If a child is struggling to understand a concept, we ensure an early intervention is put in place, this is important to ensure all our children are ready for the next step in their learning.

WHAT IS TEACHING FOR MASTERY?

https://www.ncetm.org.uk/teaching-for-mastery/mastery-explained/five-big-ideas-in-teaching-for-mastery/



Coherence

Our mathematics teaching involves lessons that are broken down into small, connected steps that allow the children to see the concept gradually unfold, giving the class the ability to apply the concept through a range of contexts.

Representation and Structure

We use a variety of representations in our lessons to expose the mathematical structure to our learners, enabling them to see the patterns and make connections in their work.

Mathematical Thinking

During our lessons the children are encouraged to think about the connections they see and explain their reasoning to others.

Fluency

It is important our learners have a quick and efficient recall of facts and procedures. We aim for our children to be able to apply these to different contexts and representations in mathematics.

Variation

Variation is about the way the teacher represents the concept being taught, in more than one

way and the sequencing of learning through a unit of work and the connections and relationships the children experience.

EYFS

Early Mathematical development starts and is encouraged with dedicated maths sessions and child-initiated activities. The focus comes from the requirements of the Early Years Framework. We look for opportunities, everyday experiences and quality texts that have a mathematical thread running through them to explore mathematical concepts and to stimulate children's interest in finding out about number, space shape and measures. Our mathematical curriculum allows children to develop a strong grounding in number which will provide the building blocks for the KS1 curriculum. We provide frequent and varied opportunities to build and apply this understanding through a range of resources such as using manipulatives, including small dinosaurs, cars, and use tens frames for organising counting. We encourage children to develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.

KEY STAGE 1

Mathematics is taught daily and focuses upon the requirements of the National Curriculum. It is taught discreetly, and links are made to everyday life, children's interests, and other curriculum areas. Children develop their mathematical knowledge and skills using a range of maths mastery strategies. They have opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing. Stem sentences are used to help children build this ability to explain their understanding in maths. They are introduced to a rich mathematical language that enables them to use the correct vocabulary as soon as possible in their explanations. Children build on their concrete understanding of maths using a range of resources such as cubes, 10 frames, numicon towards a pictorial understanding where pictures are used to represent objects. Children then move on to exploring key concepts and manipulating number in abstract.

SEND

We aim to ensure that **all** can master concepts before moving onto the next part of the curriculum sequence, allowing no one to be left behind. For those children that have specific educational needs we ensure that the child has personalised targets aimed to support those specific needs. It is important we have a clear picture of the child's learning needs and use this to plan a successful learning journey through carefully scaffolded activities.

EQUAL OPPORTUNITIES

All children are encouraged to work to their potential. Each task is designed to cater for the needs of all our classes. For those who find concepts in mathematics challenging, support,

resources and intervention is put in place to support their learning. For children who are 'rapid graspers' and find some concepts easy to understand they have the opportunity to explain their reasoning and apply their knowledge to the concept in other contexts, broadening their mathematics learning.

MASTERING NUMBER

In September 2021 we joined a new programme for early pupils called Mastering Number. This is an initiative from the National Centre for Excellence in Mathematics for children in Reception through to Year 2. In school we have four sessions a week that focus on strengthening the children's understanding of number, fluency and facts. The children will have access to a number of resources, of which one is a Rekenrek that helps children to move from counting to basic calculations, improving their number sense.

PLANNING

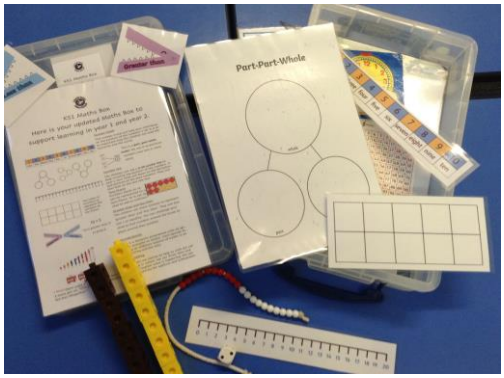
We follow the National Centre for Excellence for Mathematics guide for our teaching sequence. This helps us to organise our learning, giving us a clear vision of our long term planning and our medium and short term goals.

Through the year we prepare further units of work to cover fractions, geometry, measures and statistics. Our daily lessons have a clear focus with a learning objective and 'I can.., I know…, and I understand as part of our success criteria.

ASSESSMENT

Assessment is an integral part of the learning process and takes a variety of forms including:

· Daily success criteria statements; I can.., I know.., I understand
· Verbal feedback
· Daily challenges (recapping the previous learning)
· End of unit assessment (verbal or written)
· End of year 2 assessment
· EYFS baseline
· EYFS End of year profile
· Pupil voice



MATHS BOXES

At Church Aston Infant School we have created maths boxes to support the learning at home. The boxes contain resources appropriate to each year group and have the same representations as those used in school, for example tens frames, part, part whole models and number lines.