

Teaching and Learning Mathematics

At St Aidan's Primary School.



Our Curriculum

In our FS we develop children's number sense through a structure of shared Maths games and a curriculum based on the NCETM Mastering Number programme and the Erikson Institute's Big Ideas in Early Mathematics. We actively use the environment and plan carefully for opportunities for Mathematics to be explored and contextualised. Children leave Reception class with a deeper understanding of number, shape and measures and are well equipped to continue their Mathematical journey in KS1.

In KS1/2 the curriculum follows a sequential progression in the Autumn Term of:

- Number and Place Value
- Addition and Subtraction
- Shape and Measure

In the Spring/Summer term each class revisits these as well as time spent on:

- Multiplication and Division
- Fractions
- Money/Time/Position/ Percentages/ Ratio/Area

These units are taught with relevance to particular Key Stages and year groups.

Ongoing Mathematical skills are developed and consolidated through good use of conceptual variation in lessons, making cross curricular links to relevant areas such as Science and History and Maths Meetings which take place twice weekly and as well a weekly Retrieval Practice revisit areas of mathematics such as Place Value, Measure and Shape on a very regular basis. These Maths Meetings ensure that topics that are taught and then not revisited for months stay in children's long term memory and each child has a solid foundation in all areas of learning, preparing them for the subsequent year.



Mastery For All

Mastering maths means pupils of all ages acquiring a deep, long-term, secure and adaptable understanding of the subject. The phrase 'teaching for mastery' describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths, such as whole class teaching, using appropriate manipulatives, exploring key structures and representations and ensuring Reasoning and Problem Solving are embedded in each and every lesson. Here at St Aidan's we aim to support each child in their journey of mastering all areas of Mathematics. Achieving mastery means acquiring a solid enough understanding of the maths that's been taught to enable pupils to move on to more advanced material.

Growth Mindset

We follow a belief that all children can succeed in Mathematics. We believe that all children are able to learn Mathematics to high levels. We actively approach challenge without fear of failure as we know that struggle is an important way to grow the brain. This makes us resilient and determined learners.

Language and Vocabulary

Here At St Aidan's we know and understand that enabling children to be able to talk flexibly and fluently about their learning in Mathematics is central to a Mastery Pedagogy. Using sentence stems and sentence starters in lessons allows all learners to demonstrate their understanding with mathematical precision and clarity as well as ensuring key vocabulary is used accurately. This method begins in the earliest years in school where an 'I'll say it, You say it, We'll all say it' model is used.

Greater Depth

We always anticipate that learners will grasp concepts rapidly and surprise us by how quickly they are able to master something. To accommodate this we plan opportunities in each lesson for some further exploration of the same Maths but to a greater depth. This is sometimes through open ended investigation, a problem to solve, a different way of representing something, exploring a new method or a challenge to think about and attempt courageously. These greater depth opportunities are never planned for a pre identified, exclusive, group of learners, but for children who demonstrate their readiness and ability to move on in each, individual lesson.

Intervention

We use a 'keep up not catch up' belief throughout the school. As we aim for Mastery for all we all work together making small, sequential, cohesive steps. This enables us to intervene quickly if and when learners begin to fall behind. As each lesson is progressing, learners are observed and questioned carefully and those who are identified needing extra time to revisit learning are given timely support and intervention from focused, supported group work led by class teachers and TAs. For some identified children a more bespoke and intense programme will be used such as 1st Class @ Number, Becoming 1st Class @Number and Success at Arithmetic. These are delivered by

Assessment

Mostly assessment is a formative process involving daily work in the classroom, this enables teachers to accurately plan and teach with appropriate challenge. Children then complete a diagnostic post topic assessment which has been designed around the teaching and learning that has taken place over the unit. In turn this is then used to inform termly assessment which is tracked across the year. Formative Assessment in FS and early KS1 takes the form of organised annotated observations which are made through careful observations and discussions with children during practical activities.