Maths at St. John's

At St John's CE Primary School our intent is to develop a positive culture of deep understanding, confidence and competence in maths that produces strong, secure learning. We endeavour to ensure that children develop an enjoyment and enthusiasm for maths that will stay with them throughout their lives and empower them in future life.

Our curriculum aims to foster an enthusiasm for maths in children and equip them with the skills they need to fulfil their potential. We support our pupils to become confident in their conceptual understanding and use of maths so that they have the self-belief and determination to succeed when presented with a challenge. We are dedicated to enabling children to recognise how maths relates to the wider world in order to give the subject meaning and relevance, and so that they can use their mathematical skills and knowledge in real-life situations.

Three key aims rest at the heart of our mathematics curriculum:

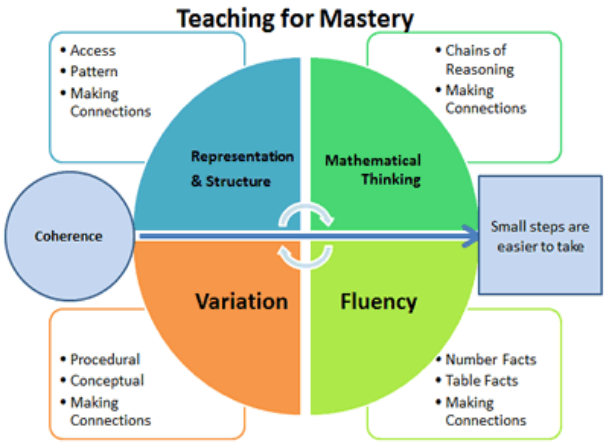
1. For pupils to become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
2. For pupils to **reason** mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument justification or proof using mathematical language.
3. For pupils to **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

By achieving these aims, our children will leave St John's as knowledgeable, skilful and confident mathematicians ready for the next phase of their learning.

Mastery Approach

At St John's CE Primary School, we teach maths through a mastery approach where we believe 'everyone can do it'. The mastery approach aims for all pupils of all ages to acquire deep, long-term, secure and adaptable understanding of the subject.

The Five Big Ideas underpin teaching for mastery:



Coherence
Lessons are broken down into small connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts.

Representation and Structure
Representations used in lessons expose the mathematical structure being taught, the aim being that pupils can do the maths without recourse to the representation.

Mathematical Thinking

If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others.

Fluency

Quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics.

Variation

Variation is twofold. It is firstly about how the concept being taught is represented, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow up practice, paying attention to what is kept the same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

At St John's CE Primary School, we follow the teaching sequence outlined by the White Rose Maths Hub schemes of learning from Reception to Year 6. This ensures that a coherent, consistent approach is adopted in all year groups. The small steps of learning provide teachers with notes and guidance on how to enhance their teaching of the subject along with key vocabulary, questions and discussion and teaching points. The White Rose Maths Hub schemes of learning reflect the content of the Foundation Stage Early Learning Goals and the National Curriculum for Maths. We follow the progression of the units during the year as identified by White Rose however teachers have the flexibility to teach units in a different order, within each term, to suit the needs of their class. High-quality resources from NCETM, NRICH and Classroom Secrets are also used to enrich our children's maths diet.

We encourage children to adopt a Growth Mindset and make mistakes in a safe and supportive environment. They are supported to discuss misconceptions with their peers and staff alike. In addition to our school ethos of JOY, six main mindset phrases underpin our teaching, which are displayed in classrooms using age appropriate language. For example:

- Everybody can do it.
- I can see it.
- Maths is everywhere.
- I can make links.
- Everyone can do it differently.
- We learn through mistakes.