



Mathematics

Intent, Implementation and Impact

Intent

At St John's, our intent for maths is to teach a rich, balanced and progressive curriculum, which caters for the needs of all individuals, allowing opportunities to reason, problem solve and develop fluent conceptual understanding.

We aim to incorporate sustained levels of challenge through varied and high-quality activities using the CPA (concrete, pictorial, abstract) approach, enabling pupils to explore maths in depth, using mathematical vocabulary to reason and explain answers.

We endeavour to make connections across mathematical ideas which are important for children to show competence in solving increasingly sophisticated problems.

Throughout their mathematical journeys, children are encouraged to build and develop resilience and show perseverance when problem solving and justify ideas and explaining choice of methods used.

In addition, they will:

- Become fluent in the fundamentals of mathematics.
- Develop conceptual understanding and the ability to recall and apply knowledge rapidly.
- To reason and problem solve by applying mathematics to a variety of increasingly complex problems.
- To build upon children's knowledge and understanding from year 1 to year 6. Children will know more, remember more and understand more.
- To develop resilience that enables all children to reason and problem solve with increased confidence.

Implementation

We implement our approach of mathematics through first quality teaching with clearly differentiated work to meet the needs of each individual child. We have a clear progression of skills for calculation across the school which fall in line with age-related expectations for each year group. Alongside this, an overview of the long-term planning of the school and medium term plans further direct what is taught in conjunction with the National Curriculum.

A range of resources, such as White Rose Maths Hub and Classroom Secrets activities, help teachers plan creative, enjoyable and challenging lessons.

- Daily maths lessons include fluency, reasoning and problem solving.
- Lessons are differentiated to ensure there is appropriate challenge for all learners.
- Concrete manipulatives and pictorial representations are used to support conceptual understanding and to make links across topics.
- Children are individually assessed and rewarded for rapid recall of number bonds (KS1) and times tables (Years 2-6).

- Through our teaching, we continuously monitor pupils' progress against expected progress for their age and children are assessed on a termly basis. The main purpose of all assessment is to always ensure we are providing excellent provision for each child.

Impact

- Most children reach end of year expectations.
- Well planned sequences of learning support children to develop and refine their maths skills.
- Children are able to independently apply their knowledge to a range of increasingly complex problems.
- Children are reasoning with increased confidence, accuracy and use of mathematical vocabulary.

Whole School Maths Overview – White Rose

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
EYFS	Getting to know you Match, sort and compare Measure and problems	It's me 1, 2, 3 Circles and Triangles 1, 2, 3, 4, 5 Shapes with 4 sides	Alive in 5 Mass and Capacity Growing 6, 7, 8	Length, height and time Building 9 and 10 3D shapes	To 20 and beyond How many now? Manipulate, compose and decompose	Visualise, map and build Make connections Consolidation
1	Place Value within 10	Addition and Subtraction within 10 Shape	Place Value within 20 Addition and Subtraction within 20	Place Value within 50 Length and height Mass and Volume	Multiplication and division Fractions Position and direction	Place Value within 100 Money Time
2	Place Value Addition and subtraction	Addition and Subtraction Shape	Money Multiplication and Division	Multiplication and Division Length and height Mass, capacity and temperature	Fractions Time	Statistics Position and Direction Consolidation
3	Place Value Addition and subtraction	Addition and subtraction Multiplication and Division	Multiplication and Division Length and perimeter	Fractions Mass Capacity	Fractions Money Time	Time Shape Statistics Consolidation
4	Place Value Addition and subtraction	Addition and subtraction Area Multiplication and Division	Multiplication and Division Length and perimeter	Fractions Decimals	Decimals Money Time	Shape Statistics Position and Direction

5	Place Value Addition and subtraction	Multiplication and Division Fractions	Multiplication and Division Fractions	Decimals and Percentages Perimeter and Area Statistics	Shape Position and Direction Decimals	Negative numbers Converting units Volume
6	Place Value Four operations	Four operations Fractions Converting Units	Ratio Algebra Decimals	Fractions, decimals and percentages Area, perimeter and volume Statistics	Shape Position and direction	Themed projects, consolidation and problem solving