

Mathematics

Maths is all around us, and so we aim to ensure that children enjoy mathematics and that they are curious about their learning, in order for them to become confident and accurate mathematicians, ready to tackle mathematics in a range of situations in their everyday lives.

As a school, we believe in the mastery approach to mathematics, whereby we recognise that each child needs a deep understanding of mathematics, in order that they can build upon solid foundations in their future learning. We recognise that children learn at different rates, and by using appropriate resources and different teaching methods, all children can achieve in, and enjoy mathematics. There will be some children who gain greater depth of proficiency and understanding, and challenge for these children will be provided by going deeper rather than accelerating into new mathematical content. We find that more time is spent teaching topics to allow for the development of depth and sufficient practice in order to embed learning. Mastery of maths means that children are able to use their knowledge appropriately, flexibly and creatively and to apply it in new and unfamiliar situations.

Mastery of the maths curriculum means that all pupils: use mathematical concepts, facts and procedures appropriately, flexibly and fluently; recall key number facts with speed and accuracy and use them to calculate and work out unknown facts; and have sufficient depth of knowledge and understanding to reason and explain mathematical concepts and procedures and use them to solve a variety of problems.

At Boxgrove, Maths is taught daily, from Early years, through to years 5 and 6, and lessons are structured in order that children's knowledge, skills and understanding are developed. Units of work are planned using White Rose Mathematics, and a strong emphasis is placed on using practical apparatus to support learning. We make use of the concrete, pictorial and abstract progression of learning, (CPA approach) and children are encouraged to choose the appropriate method to support their learning, and to make use of maths resource boxes/trays in class as needed. In both key stages, direct teaching occurs, before children are given independent or supported differentiated activities. Mastery of facts, procedures and concepts needs time: time to explore a concept in detail, and time to allow for sufficient practice in order to develop fluency.

Mathematics is one of the core subjects of the National Curriculum, and has 4 strands: Number, Measurement, Geometry and Statistics. Links between the different strands and within different curriculum areas are developed and encouraged.

National Curriculum programmes of study for Mathematics key stages 1 and 2 can be accessed via the link below:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf

Maths Overview for Early Years

	Autumn 1	Autumn 2
Reception	Baselining	Numbers - counting and recognition 2D Shapes Numbers - addition Money using everyday language in relation to money Numbers - subtraction Time - sequence/day and night and related language

Maths Overview for KS1

	Autumn
Year 1	<p>Place value within 10 (sorting, counting, ordering, reading/writing numbers) Using < and > and = More or less</p> <p>Addition and subtraction (part/whole method, fact families, bonds to 10)</p> <p>2D and 3D shape (recognising and sorting shapes)</p>
Year 2	<p>Place value within 100 (counting, representing, tens and ones, comparing, ordering) 2s, 5s, 10s and 3s</p> <p>Addition and subtraction (fact families, comparisons, bonds to 100 - 10s,, more/less) Addition of 1 and 2 digit numbers Subtraction of 1 and 2 digit numbers</p> <p>Money (£ and p, comparison of amounts, totals, difference, change)</p>

Maths Overview for KS2

	Autumn Term	
Year 3	Place Value - reading, writing and representing numbers up to 1,000 - recognising place value in a 3-digit number Counting in multiples Rounding numbers 2D and 3D shape Symmetry	
Year 4	Place Value - reading, writing and representing numbers up to 1,000 and beyond - recognising place value in a 4-digit number Counting in multiples Rounding Numbers Roman Numerals 2D and 3D shape Symmetry	
Year 5	Place Value Rounding Numbers Roman Numerals Negative Numbers Addition and Subtraction	Multiplication and Division Statistics - line graphs, tables and timetables Perimeter, Area and Volume
Year 6	Place Value Rounding Numbers Negative Numbers Addition and Subtraction	Multiplication and Division Factors & Multiples Order of operations Statistics - line graphs, pie charts, circles and the mean Perimeter, Area and Volume