South Avenue Primary School

Maths Progression of Skills

Maths Curriculum Intent	At South Avenue Primary School, we aim to deliver a high-quality maths education which enables all children to feel a sense of enjoyment, curiosity and achievement. We encourage children to reason mathematically to support them to successfully solve problems and challenges in everyday life. In line with the current National Curriculum, we provide a maths curriculum which enables our pupils to: - become fluent in the fundamentals of mathematics - reason mathematically by following a line of enquiry and solve problems by applying their mathematics to a variety of routine - solve routine and non-routine problems						
Number and place value	**EYFS**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
	Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number.	The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. Children will use systematic methods for number bonds within 10. Children will count objects to 100 and read, write and represent numbers in numerals and words.	By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1. Children will know fact families through addition and subtraction bonds to 20. Children will count objects to 100	The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Children can compare and order numbers up to 1000. Pupils can read and write numbers up to	By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work. Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling. Pupils can recognise the place value of each digit in a four-digit number (thousands,	The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Pupils can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.	Pupils should read, spell and pronounce mathematical vocabulary correctly. Pupils can read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.

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			and read and write numbers in numerals and words.	1000 in numerals and in words.	hundreds, tens and ones) up to 10,000.		
Calculations	Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.	This should involve working with numerals, words and the four operations, including with practical resources and concrete apparatus	Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts. Pupils will check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition. Pupils use a variety of language to describe multiplication and division. Pupils are introduced to the	This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers	This should develop the connections that pupils make between multiplication and division with fractions and decimals	At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculations working with fractions, decimals and percentages.	By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

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			multiplication tables and use a range of materials and contexts to group and share quantities.				
Measures	Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.	Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.	Pupils use standard units of measurement with increasingly accuracy and use appropriate language to compare measures.	It should ensure that they can use measuring instruments with accuracy and make connections between measure and number. Children can measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). Pupils can measure the perimeter of simple 2D shapes.	Pupils build on their understanding of place value and decimal notation to record metric measures, including money.	Teaching in geometry and measures should consolidate and extend knowledge developed in number. Measures to include conversion and understanding of metric to imperial and vice versa.	Pupils will solve multi-step word problems with measures. As well as decimal work with metric measurements, they will convert between miles and km and use a range of visual/ factual ways to convert between a wider range of imperial and metric measurements.
Geometry	The children explore characteristics of everyday objects and shapes and use mathematical language to describe them.	At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Children will describe turns and position.	Pupils identify, compare and sort shapes on the basis of their properties and use vocabulary precisely. Children will describe movement though turns and making	Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently	Pupils continue to classify shapes using geometrical properties, extending to classifying different triangles.	Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.	Pupils will classify a wider range of 2D and 3D shapes using more precise vocabulary e.g. diagonal midpoints. They will accurately construct 2D shapes and find the area of more complex

			patterns with shapes.	describe the relationships between them. Children can recognise angles as a property of shape or a description of a turn. Pupils can identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.			shapes e.g. parallelogram.