



SOUTH WOOTTON INFANT SCHOOL

Maths Progression

	EYFS	YEAR 1	YEAR 2
Number and Place Value			
Mathematical Vocabulary	<ul style="list-style-type: none"> To build up vocabulary that reflects the breadth of their experiences. To extend vocabulary, especially by grouping and naming, exploring the meaning and sounds of new words. 	<ul style="list-style-type: none"> To read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at year 1. 	<ul style="list-style-type: none"> To read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.
Counting	<ul style="list-style-type: none"> To recite numbers in order to 10. To realise not only objects, but anything can be counted including steps, claps or jumps. To count up to three or four objects by saying one number name for each item. To count out up to six objects from a larger group. To count actions or objects which cannot be moved. To count objects to 10 and beginning to count beyond 10. To count an irregular arrangement of up to ten objects. To estimate how many objects 	<ul style="list-style-type: none"> To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. To identify one more and one less than a given number. To count in multiples of twos, fives and tens from different multiples to develop their recognition of patterns in the number system, including varied and frequent practice through increasingly complex questions. To recognise and create repeating patterns with objects and with shapes. 	<ul style="list-style-type: none"> To count in steps of 3, 4 and 5 from 0, and in twos and tens from any number, forward and backward.

	<p>they can see and check by counting them.</p> <ul style="list-style-type: none"> To count reliably with numbers from one to 20. 		
Identifying, Representing and Estimating Numbers	<ul style="list-style-type: none"> To say the number that is one more than a given number. To find one more or one less from a group of up to five objects, then ten objects. To say which number is one more or one less than a given number from one to 20. 	<ul style="list-style-type: none"> Identify and represent numbers using objects and pictorial representations 	<ul style="list-style-type: none"> To identify, represent and estimate numbers using different representations including the number line.
Reading and Writing Numbers	<ul style="list-style-type: none"> To show an interest in numerals in the environment. To use some number names accurately in play. To recognise some numerals of personal significance. To recognise numerals 1 to 5. 	<ul style="list-style-type: none"> To read and write numbers from 1 to 20 in numerals and words. To count, read and write numbers to 100 in numerals. 	<ul style="list-style-type: none"> To read and write numbers to at least 100 in numerals and in words.
Compare and Order Numbers	<ul style="list-style-type: none"> To compare two groups of objects, saying when they have the same number. To use the language of 'more' and 'fewer' to compare two sets of objects. To place numbers one to 20 in order. 	<ul style="list-style-type: none"> Given a number identify one more and one less To order different sets of numbers (smallest to greatest and greatest to smallest) 	<ul style="list-style-type: none"> To compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs.
Understanding Place Value	<ul style="list-style-type: none"> To show curiosity about numbers by offering comments or asking questions. 	<ul style="list-style-type: none"> To understand different digits have different values To identify 10s and 1s 	<ul style="list-style-type: none"> To recognise the place value of each digit in a two-digit number (tens, ones) to become fluent and apply their knowledge of numbers to reason with, discuss

			<p>and solve problems.</p> <ul style="list-style-type: none"> To begin to understand zero as a place holder.
Solve Problems	<ul style="list-style-type: none"> To show an interest in number problems. To begin to identify own mathematical problems based on own interests and fascinations. 	<ul style="list-style-type: none"> To practise ordinal numbers and solve simple concrete problems. 	<ul style="list-style-type: none"> To use place value and number facts to solve related problems to develop fluency.
Addition and Subtraction			
Mental Calculations	<ul style="list-style-type: none"> To find the total of items in two groups by counting all of them. To begin to use the vocabulary involved in adding and subtracting in practical activities and discussion. To add and subtract two single-digit numbers and count on and back to find the answer using quantities and objects 	<ul style="list-style-type: none"> To add and subtract one-digit and two-digit numbers to 20, including zero. To realise the effect of adding or subtracting zero. 	<ul style="list-style-type: none"> To extend the language of addition and subtraction to include sum and difference. To show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. To add and subtract numbers using an efficient strategy, explaining their method verbally using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones, a two-digit number and tens, two two-digit numbers, add three one-digit numbers.
Number Bonds	<ul style="list-style-type: none"> To explore number bonds to and within 10 using concrete objects. 	<ul style="list-style-type: none"> To memorise, represent and use number bonds and related subtraction facts within 20. 	<ul style="list-style-type: none"> To recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising

			<p>other associated additive relationships.</p> <ul style="list-style-type: none"> To recall and use addition and subtraction facts to 20 to become fluent in deriving associative facts (e.g. $10 - 7 = 3$, $100 - 70 = 30$) and derive and use related facts up to 100.
Written Calculations		<ul style="list-style-type: none"> To read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. 	<ul style="list-style-type: none"> To begin to record addition and subtraction in columns to support place value and prepare for formal written methods with larger numbers.
Inverse Operations, Estimating and Checking Answers		<ul style="list-style-type: none"> Begin to explore the inverse relationship between addition and subtraction 	<ul style="list-style-type: none"> To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Solve Problems	<ul style="list-style-type: none"> To solve problems, including doubling, halving and sharing. 	<ul style="list-style-type: none"> To discuss and solve one-step problems (in familiar practical contexts) that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems. Problems include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are able to use these operations flexibly. 	<ul style="list-style-type: none"> To solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods.

Multiplication and Division

Mental Calculations

- To begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.
- To begin to relate multiplication and division facts to fractions and measures (e.g., $40 \div 2 = 20$, 20 is a half of 40).
- To show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot, to develop multiplicative reasoning.

Multiplication and Division Facts

- To make connections between arrays, number patterns, and counting in twos, fives and tens.
- Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities
- To use a variety of language to describe multiplication and division.
- To count from 0 in multiples of 2, 5, 10, 50 and 100.
- To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers and use them to solve simple problems, demonstrating an understanding of commutativity as necessary.
- To connect the 10 multiplication table to place value, and the 5 multiplication table to the

			divisions on the clock face.
Written Calculation	•	•	<ul style="list-style-type: none"> To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs. To begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.
Solve Problems	•	<ul style="list-style-type: none"> To solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. 	<ul style="list-style-type: none"> To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
Fractions, Decimals and Percentages			
Counting			<ul style="list-style-type: none"> To count in fractions up to 10, starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line.
Recognising, Finding and Naming Fractions		<ul style="list-style-type: none"> To recognise, find and name a half as one of two equal parts of an object, shape or quantity by solving problems. To recognise, find and name a quarter as one of four equal 	<ul style="list-style-type: none"> To recognise, find, name, identify and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ of a length, number, shape, set of objects or quantity and know that all parts must be equal parts of the whole.

		<p>parts of an object, shape or quantity by solving problems.</p> <ul style="list-style-type: none"> To connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole. 	<ul style="list-style-type: none"> To connect unit fractions to equal sharing and grouping, to numbers when they can be calculated, and to measures, finding fractions of lengths, quantities, sets of objects or shapes. They meet $\frac{3}{4}$ as the first example of a non-unit fraction.
Equivalence			<ul style="list-style-type: none"> To write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence $\frac{2}{4}$ and $\frac{1}{2}$.
Measurement			
Describe, Measure, Compare and Solve (All Strands)	<ul style="list-style-type: none"> To order two or three items by length or height. To order two items by weight or capacity. To use everyday languages to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and solve problems. 	<ul style="list-style-type: none"> To compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity and volume, time. To measure and begin to record the following: lengths and heights, mass/weight, capacity and volume, time. To move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units using measuring tools, such as a ruler, weighing scales and containers. 	<ul style="list-style-type: none"> To choose and use appropriate standard units with increasing accuracy using their knowledge of the number system to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. To use the appropriate language and record using standard abbreviations. To compare and order lengths, mass, volume/capacity and record the results using >, < and =.

			<ul style="list-style-type: none"> To compare measures including simple multiples such as 'half as high'; 'twice as wide'.
Telling the Time	<ul style="list-style-type: none"> To use everyday language related to time. To order and sequence familiar events. To measure short periods of time in simple ways. 	<ul style="list-style-type: none"> To sequence events in chronological order using language. To recognise and use language relating to dates, including days of the week, weeks, months and years. To tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. 	<ul style="list-style-type: none"> To read, tell and write the time to five minutes, including quarter past/to the hour/half hour and draw the hands on a clock face to show these times. To become fluent in telling the time on analogue clocks and recording it. To know the number of minutes in an hour and the number of hours in a day. To compare and sequence intervals of time.
Money	<ul style="list-style-type: none"> To begin to use everyday language related to money. 	<ul style="list-style-type: none"> To recognise and know the value of different denominations of coins and notes. 	<ul style="list-style-type: none"> To become fluent in counting and recognising coins. To recognise and use symbols for pounds (£) and pence (p) accurately, recording pounds and pence separately; combine amounts to make a particular value. To find and use different combinations of coins that equal the same amounts of money. To solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.

Properties of Shapes

<p>Recognise 2D and 3D Shapes and Their Properties</p>	<ul style="list-style-type: none"> • To show an interest in shape and space by playing with shapes or making arrangements with objects. • To show interest in shape by sustained construction activity or by talking about shapes or arrangements. • To show interest in shapes in the environment. • To use shapes appropriately for tasks. • To begin to talk about shapes in everyday objects, e.g. 'round' and 'tall'. • To begin to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. • To select a particular named shapes. • To explore characteristics of everyday objects and shapes and use mathematical language to describe them. 	<ul style="list-style-type: none"> • To recognise, handle and name common 2D and 3D shapes in different orientations/sizes and relate everyday objects fluently. • To recognise that rectangles, triangles, cuboids and pyramids are not always similar to each other. 	<ul style="list-style-type: none"> • Pupils read and write names for shapes that are appropriate for their word reading and spelling. • To handle, identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line. • To handle, identify and describe the properties of 3D shapes, including the number of edges, vertices and faces. • To identify 2D shapes on the surface of 3D shapes.
<p>Compare and Classify Shapes</p>	<ul style="list-style-type: none"> • To show awareness of similarities of shapes in the environment. 	<ul style="list-style-type: none"> • To sort and group 3D shapes according to simple properties including type, size, colour. 	<ul style="list-style-type: none"> • To identify, compare and sort common 2D and 3D shapes and everyday objects on the basis of their properties and use vocabulary precisely.

Drawing 2D Shapes and Constructing 3D Shapes	<ul style="list-style-type: none"> To draw around 2D shapes. 	<ul style="list-style-type: none"> To be able to draw 2D shapes freehand with the basic properties. 	<ul style="list-style-type: none"> To draw 2D shapes using a straight edge where needed.
Position and Direction			
Position, Direction and Movement	<ul style="list-style-type: none"> To use positional language. To describe their relative position such as 'behind' or 'next to'. 	<ul style="list-style-type: none"> To describe position, direction and movement, including whole, half, quarter and three-quarter turns in both directions and connect clockwise with the movement on a clock face. To use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside. 	<ul style="list-style-type: none"> To use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).
Patterns	<ul style="list-style-type: none"> To use familiar objects and common shapes to create and recreate patterns and build models. To recognise, create and describe patterns. 	<ul style="list-style-type: none"> To describe position within patterns. 	<ul style="list-style-type: none"> To order and arrange combinations of mathematical objects and shapes, including those in different orientations, in patterns and sequences.
Statistics			
Record, Present and Interpret Data	<ul style="list-style-type: none"> To record, using marks that they can interpret and explain. 	<ul style="list-style-type: none"> To record using simple representations. 	<ul style="list-style-type: none"> To record, interpret, collate, organise and compare information. To interpret and construct simple pictograms, tally charts, block diagrams and simple tables (e.g. many-to-one

			<p>correspondence in pictograms with simple ratios 2, 5, 10 scales).</p> <ul style="list-style-type: none">• To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.• To ask and answer questions about totalling and comparing categorical data
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