Stoke Park Infant School
Year 2 Progression of Skills in Maths

"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. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools].
At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. 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."
(Mathematics programmes of study: key stages 1 and 2. National curriculum in England. September 2013)

Subject content	End of Year 1	Year 2 Autumn Term	Year 2 Spring Term	Year 2 Summer Term	Beginning of Year 3
Number and Place Value	• count, read and write numbers to 100 in numerals; • count in multiples of twos, fives and tens • Count within 100, forwards and backwards, starting with any number. • Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = • Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.	• count in steps of 2, from 0, and in tens from any number, forward or backward • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use <, > and = signs • read and write numbers to at least 100 in numerals	• count in steps of 5 from 0 forward or backward • read and write numbers to at least 100 in words • use place value and number facts to solve problems.	• count in steps of 3 from 0 forward or backward • Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. • Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	• count from 0 in multiples of 4; find 10 or 100 more or less than a given number • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • identify, represent and estimate numbers using different representations
Addition and Subtraction	• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = - 9	• solve problems with addition and subtraction: ○ using concrete objects and pictorial representations, including those involving numbers.	• using concrete objects and pictorial representations, including those involving measures • adding three one-digit numbers • show that addition of two numbers can be done in	• Solve problems involving addition and subtraction using concrete objects and pictorial representations, including those involving quantities	• add and subtract numbers mentally, including: ○ a three-digit number and ones

	• Develop fluency in addition and subtraction facts within 10. • Compose numbers to 10 from 2 parts and partition numbers to 10 into parts, including recognizing odd and even numbers • Read, write and interpret equations containing addition (), subtraction () and equals () symbols, and relate additive expressions and equations to real-life contexts.	○ applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently. • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ○ a two-digit number and ones ○ a two-digit number and tens	any order (commutative) and subtraction of one number from another cannot	• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two-digit numbers • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	○ three-digit number and hundreds • estimate the answer to a calculation and use inverse operations to check answers
Multiplication and Division	• 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.	• recall and use multiplication and division facts for the 2, and 10 multiplication tables, including recognising odd and even numbers • show that multiplication of two numbers can be done in any order (commutative) • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods,	• recall and use multiplication and division facts for the 5-multiplication table, including recognising odd and even numbers • calculate mathematical statements for multiplication using the multiplication (×), and equals (=) signs	• calculate mathematical statements for division within the multiplication tables and write them using division (÷) • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division facts, including problems in contexts. • Solve problems involving multiplication and division, using materials, arrays and mental methods	• recall and use multiplication and division facts for the 3, 4 multiplication tables • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know using mental strategies
Fractions	• recognise, find and name a half as one of two equal parts of an object, shape or quantity	• recognise, find, name and write fractions 1/3 and 1/4	• recognise, find, name and write fractions 2/4 and 3/4 of a length, shape, set of objects or quantity	• write simple fractions eg 1/2 of 6 = 3 and recognise the	• count up and down in tenths; recognise that tenths arise from

	• recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.			equivalence of 2/4 and ½ • Recognise, find, name and write fractions 1/3; 1/4; 2/4; 3/4 of a length, shape and quantity	dividing an object into 10 equal parts • recognise, find and write fraction of a discrete set of objects: unit fractions • compare and order unit fractions, and fractions with the same denominators
Measurement	• Compare, describe and solve practical problems for: ○ capacity/volume (full/empty, more than, less than, quarter) ○ measure and begin to record the following: ○ lengths and heights ○ mass/weight ○ capacity and volume ○ time (hours, minutes, seconds) • Compare, describe and solve practical problems for lengths and height; mass or weight; capacity or volume • Know the days of the week and months in the year	• compare and order lengths, record the results using >, < and = • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit, • compare and sequence intervals of time	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm);using rulers • recognise and use symbols for pounds (£) and pence (p); • combine amounts to make a particular value • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • tell and write the time Including quarter past/to the hour and draw the hands on a clock face to show these times. • know the number of minutes in an hour and the number of hours in a day	• choose and use appropriate standard units to estimate and measure mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using scales thermometers and measuring vessels • tell and write the time to 5 minutes • compare and order lengths, mass, volume/capacity and record the results using >, < and =	• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ ml) • measure the perimeter of simple 2-D shapes • add and subtract amounts of money • tell and write the time from an analogue clock, and 12-hour • use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
Geometry: Shape	• Recognise and name common 3-D shapes including cuboids, cubes, pyramids and spheres.	• identify and describe the properties of 2-D shapes, • including the number of sides and symmetry in a vertical line	• identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces	• compare and sort common 2-D and 3-D shapes and everyday objects.	• draw 2-D shapes and make • 3-D shapes using modelling materials;

	• Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.	• identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid		• Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties	• identify right angles, • identify horizontal and vertical lines
Geometry: Position and Direction	• Describe position, directions and movements, including half, quarter and three-quarter turns. • Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.	• order and arrange combinations of mathematical objects in patterns	• use mathematical vocabulary to describe position, direction and movement, including movement in a straight line	• 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).	•
Statistics		• ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	• ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	• interpret and construct simple pictograms, tally charts, block diagrams and simple tables • ask and answer questions about totalling and comparing categorical data	• interpret and present data using bar charts, pictograms and tables