

Maths progression at Stanley Grove

	Early learning goal	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Counting	<p>Children count verbally beyond 20.</p> <p>Recognise the pattern of the counting system.</p> <p>Reception vocab counting: Number, zero, one, two, three... ten, twenty... how many...? count, count (up) to count on (from, to) count back (from, to) count in ones, more, less, how many times? pattern, pair, guess how many, estimate, nearly, close to, about the same as, start from/at/with, continue, add, more, altogether, one more, take (away), how many are left? one less</p>	<p>•count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>•count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>Vocab: Count to twenty and beyond, zero, ten, twenty... one hundred, none, count (up) to count on (from, to) count back (from, to) count in twos... tens... more, less, many, few odd, even every other how many times? pattern, pair.</p>	<p>•count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward</p> <p>Vocab: Two hundred, one thousand, threes, fives, multiple of, sequence, continue, estimate, predict, rule. Hundreds, one/two or three digit number.</p>	<p>•count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.</p> <p>Vocab: Hundreds, thousands, units, relationship, one hundred more/less, approximate, approximately, round up/down, round to nearest 10, count in fours/sixes/eights, negative numbers, greatest/least value< (less than), > (greater than).</p>	<p>•count in multiples of 6, 7, 9, 25 and 1000</p> <p>•find 1000 more or less than a given number</p> <p>count backwards through zero to include negative numbers</p> <p>Vocab: Thousands, ten thousands, hundred thousand, million, four digit number, numeral, one thousand more/less, round to nearest hundred, integer, positive, negative, above/below zero, minus, consecutive, sort, classify, property, decimal place, Roman numerals, round to nearest hundred/thousand. Count in sevens/nines/twenty-fives/thousands. <, ></p>	<p>•count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</p> <p>•interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>Vocab: \geq (greater than or equal to) \leq (less than or equal to) Ascending/descending order, round to nearest ten/hundred/thousand, million, formula, divisibility, square number, one/two squared etc., Roman Numerals, negative, positive, currency, discount, strategy, identify, reasoning.</p>	<p>•use negative numbers in context, and calculate intervals across zero.</p> <p>negative, positive, thermometer, temperature.</p>	
Place Value	<p>Children have a deep understanding of number to 10, including the composition of each number.</p> <p>Reception vocab comparing and ordering numbers: the same number as, as many as, Of two objects/amounts: greater, more, larger, bigger, less, fewer, smaller Prob solving: What could we try next? How did you work it out? Tell, read, write, trace, copy, finish, colour, shade, work out, best way, another way.</p>		<p>•recognise the place value of each digit in a two-digit number</p> <p>•compare and order numbers from 0 up to 100; use <, > and = signs</p> <p>Vocab: place, place value, exchange, represents stands for, greater/less than.</p>	<p>•recognise the place value of each digit in a three-digit number</p> <p>•compare and order numbers up to 1000</p> <p>•round any number to the nearest 10</p> <p>Vocab: Hundreds, thousands, units, relationship, one hundred more/less, approximate, approximately, round up/down, round to nearest 10, count in fours/sixes/eights, negative numbers, greatest/least value< (less than), > (greater than).</p>	<p>•recognise the place value of each digit in a four-digit number</p> <p>•order and compare numbers beyond 1000</p> <p>•round any number to the nearest 10, 100 or 1000</p> <p>Vocab: Thousands, ten thousands, hundred thousand, million, four digit number, numeral, one thousand more/less, round to nearest hundred, integer, positive, negative, above/below zero, minus, consecutive, sort, classify, property, decimal place, Roman numerals, round to nearest hundred/thousand. Count in sevens/nines/twenty-fives/thousands. <, ></p>	<p>•read, write, order and compare numbers up to 1 000 000 and determine the value of each digit</p> <p>•round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000</p> <p>Vocab: \geq (greater than or equal to) \leq (less than or equal to) Ascending/descending order, round to nearest ten/hundred/thousand, million,</p>	<p>•read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</p> <p>•round any whole number to a required degree of accuracy</p> <p>Vocab: \geq (greater than or equal to) \leq (less than or equal to) Ascending/descending order, round to nearest ten/hundred/thousand, million, ten million.</p>	
Representing number	<p>Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p> <p>Vocab chn should use: Double, share, equal, equally, number names 1-10 and first, second, third etc.</p> <p>Additional vocab teacher will use: Numbers 1-10, even, odd, double, pattern, pairs, dots, compare, double, halve, half, share out, left, left over.</p>	<p>•identify and represent numbers using objects and pictorial representations including the number line, & use language of: equal to, more than, less than (fewer), most, least</p> <p>•read and write numbers from 1 to 20 in numerals and words</p> <p>•read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p> <p>Vocab: Numbers 1-20, numeral, ones, equal to, more than, less than (fewer), most, least, +, -, = first, second, third... tenth, eleventh... twentieth last, last but one before, after next, between, half-way between above, below, ten more, ten less. Of three or more objects/amounts: greatest, most, biggest, largest least, fewest, smallest.</p>	<p>•identify, represent and estimate numbers using different representations, including the number line</p> <p>•read and write numbers to at least 100 in numerals and in words</p> <p>Vocab: twenty-first, twenty-second..., exact, exactly, round, round to nearest ten, number bonds, hundred square, write in figures, £, bought, sold, recite.</p>	<p>•identify, represent and estimate numbers using different representations</p> <p>•read and write numbers up to 1000 in numerals and in words</p> <p>Vocab: Hundreds, thousands, ones, integer, relationship, one hundred more/less, approximate, approximately, round up/down, round to nearest 10, count in fours/sixes/eights, negative numbers, greatest/least value< (less than), > (greater than).</p>	<p>•identify, represent and estimate numbers using different representations</p> <p>•read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value</p> <p>Vocab: Thousands, ten thousands, hundred thousand, million, four digit number, numeral, one thousand more/less, round to nearest hundred, integer, positive, negative, above/below zero, minus, consecutive, sort, classify, property, decimal place, Roman numerals, round to nearest hundred/thousand. Count in sevens/nines/twenty-fives/thousands. <, ></p>	<p>•read Roman numerals to 1000 (M) and recognise years written in Roman numerals</p> <p>•recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³)</p> <p>Vocab: square number, one/two squared etc., cubed, Roman Numerals,</p>		
Number facts (+/-)	<p>Children compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</p> <p>Vocab chn should use: one more/less and number names 1-10</p>	<p>•given a number, identify one more and one less</p> <p>•represent and use number bonds and related subtraction facts within 20</p> <p>Vocab: one more/less, two more... ten more how many more to make...? difference between half, halve</p>	<p>•use place value and number facts to solve problems recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p> <p>Vocab: Addition, subtraction, one hundred more/less, tens boundary, opposite operation, missing number, column method.</p>					
Mental +/-	<p>Automatically recall (without reference to rhymes, counting, or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p> <p>Subitise (recognise quantities without counting up to 5)</p> <p>Vocab chn should use: Add take equals and number names 1-10.</p>	<p>•add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>+, plus make, sum, total score, near double, = equals, sign, is the same as</p>	<p>•add and subtract numbers using concrete objects, pictorial representations, and mentally, including: TU+U, TU+T, TU+TU and U+U+U</p> <p>•show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</p> <p>Vocab: Addition, subtraction, one hundred more/less, tens boundary, opposite operation, missing number.</p>	<p>•add and subtract numbers mentally, including: HTU+U, HTU+T and HTU+H</p>			<p>•add and subtract numbers mentally with increasingly large numbers</p>	<p>•perform mental calculations, including with mixed operations and large numbers</p> <p>Vocab: BODMAS</p>

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Written +/-			<p>Start in Y2: add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p> <p>Vocab: Addition, subtraction, one hundred more/less, tens boundary, opposite operation, missing number, column method.</p>	<p>•add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p> <p>Vocab: Hundreds boundary, carr , take, inverse.</p>	<p>•add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</p> <p>Vocab: Thousands boundary, use inverse, estimate, column addition/subtraction, carry.</p>	<p>•add and subtract whole numbers with more than 4 digits, including using formal written methods</p> <p>Vocab: Multi-step problem, estimate and check.</p>	
Problems +/-		<p>•solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$.</p> <p>Vocab: how many more is... than...? how much more is...? – subtract, minus leave, how many have gone? two less, ten less... how many fewer is... than...? how much less is...? puzzle, answer, right, wrong, what could we try next? How did you work it out? count out, number sentence, sign, operation, explain, describe, complete, check.</p>	<p>•solve problems with addition and subtraction, using concrete, pictorial and abstract representations</p> <p>•recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p> <p>Vocab: Addition, subtraction, one hundred more/less, tens boundary, opposite operation, missing number, column method. calculate, calculation, mental calculation correct, symbol, describe the pattern/rule, find all, find different, investigate, decide, discuss, explain your method, give an example of, label, solve.</p>	<p>•estimate the answer to a calculation and use inverse operations to check answers</p> <p>•solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p> <p>Vocab: Hundreds boundary, carry, inverse, method.</p>	<p>•estimate and use inverse operations to check answers to a calculation</p> <p>•solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</p> <p>Vocab: justify, make a statement about, two-step problem, logical, trial and improve, inverse.</p>	<p>•use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>•solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Vocab: Multi-step problem, tenths boundary, check, estimate, round, currency, discount, strategy, identify, reasoning.</p>	<p>Repeat in Y6: •solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Vocab: prove, define, adjust, profit, loss.</p>
Number facts (x/÷)			<p>•recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Begin 3's if possible.</p> <p>Vocab: lots of, groups of, x, times, multiply, multiplied by, multiple of, once, twice, three times... ten times... times as big, repeated addition, array row, column, share equally, one each, two each, three each... group in pairs, threes... tens equal groups of, ÷, divide, divided by, divided into.</p>	<p>•recall and use multiplication and division facts for the 3, 4, 6 and 8 multiplication tables, start to know factor pairs</p> <p>Vocab: Multiplication, product, division, factors, factor pairs. Count in 3's/4s/6s/8s.</p>	<p>•recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Vocab: Multiples, factors, factor pairs, divisible by, use inverse.</p>	<p>•identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</p> <p>•know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</p> <p>•establish whether a number up to 100 is prime and recall prime numbers up to 19</p> <p>Vocab: Common factors, prime numbers, composite numbers (non-prime), squared numbers, cubed numbers.</p>	<p>•identify common factors, common multiples and prime numbers</p> <p>Vocab: Common factors, common multiples, prime numbers.</p>
Mental (x/÷)			<p>•calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs</p> <p>•show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</p> <p>Try to fit this in if possible (Y3 statement): •write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods</p> <p>And progressing to written methods.</p> <p>Vocab: lots of, groups of, x, times, multiply, multiplied by, multiple of, once, twice, three times... ten times... times as big, repeated addition, array row, column, share equally, one each, two each, three each... group in pairs, threes... tens equal groups of, ÷, divide, divided by, divided into.</p>	<p>•write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods</p> <p>Vocab: Multiplication, product, division</p>	<p>•use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</p> <p>•recognise and use factor pairs and commutativity in mental calculations</p> <p>Vocab: Factor, factor pairs</p>	<p>•multiply and divide numbers mentally drawing upon known facts</p> <p>•multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p> <p>Vocab: Tenths, hundredths, thousandths, decimal place</p>	<p>•perform mental calculations, including with mixed operations and large numbers</p> <p>Vocab: BODMAS</p>
Written (x/÷)				<p>•Progress to formal written methods calculations as above</p> <p>Vocab: Multiplication, product, division, remainder, formal written method, carry, bus stop method, inverse.</p>	<p>•multiply two-digit and three-digit numbers by a one-digit number using formal written layout</p> <p>Try to fit in if possible (Y5 statement): •divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</p> <p>Vocab: Multiplication, product, division, remainder, formal written method, carry, bus stop method, inverse</p>	<p>•multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers</p> <p>•divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context (e.g. decimal not remainder for money)</p> <p>Vocab: estimate, round, check, currency, discount, strategy, identify, reasoning, remainder, decimal point.</p>	<p>•multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication •divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context</p> <p>•divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to context</p> <p>Vocab: long division, recurring.</p>
Problems (x/÷)		<p>•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.</p> <p>Vocab: Compare, double, half, halve, count out, share out, left, left over Split, times, divide, share out, left, left over, puzzle, answer, right, wrong, what could we try next? How did you work it out? count out, number sentence, sign, operation, explain, describe, complete, check.</p>	<p>•solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</p> <p>Vocab: lots of, groups of, x, times, multiply, multiplied by, multiple of, once, twice, three times... ten times... times as big, repeated addition, array row, column, share equally, one each, two each, three each... group in pairs, threes... tens equal groups of, ÷, divide, divided by, divided into.</p>	<p>•solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p> <p>Vocab: Multiplication, product, division, remainder, formal written method, carry, bus stop method, inverse.</p>	<p>•solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</p> <p>Vocab: Factor, quotient, divisible by, use inverse, prime number, non-prime, prime factor, decimal, remainder, justify, make a statement about, two-step problem, logical.</p>	<p>•solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</p> <p>•solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p> <p>•solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</p> <p>Vocab: factor pairs, common factors, composite numbers (non-prime), cubed numbers, scaling, strategy, identify, reasoning.</p>	<p>•use their knowledge of the order of operations to carry out calculations involving the four operations</p> <p>•solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>•solve problems involving addition, subtraction, multiplication and division</p> <p>•use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p> <p>Vocab: BODMAS, long division, recurring.</p>
Recognising fractions		<p>•recognise, find and name a half as one of two equal parts of an object, shape or quantity</p> <p>•recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p> <p>Moved from Y2: •recognise, find, name and write fractions $1/3$, $1/4$, $2/4$ and $3/4$ of a length, shape, set of objects or quantity</p> <p>Vocab: Quarter, whole, three quarters, two quarters.</p>	<p>•recognise, find, name and write fractions $1/3$, $1/4$, $2/4$ and $3/4$ of a length, shape, set of objects or quantity</p> <p>Moved from Y3: recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions will small denominators</p> <p>Vocab: Part, equal parts, fraction, one whole, unit fraction, compare, order, tenths, denominator, numerator.</p>	<p>•count up and down in tenths;</p> <p>•recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10</p> <p>Vocab: One/two/three thirds, equivalent, fifths, sixths, sevenths, eighths, ninths, decimal point, nought point one/two/three etc.</p>	<p>•count up and down in hundredths;</p> <p>•recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</p> <p>Vocab: hundredths, tenths</p>	<p>•recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number</p> <p>Vocab: Proper/improper fraction, mixed number, cancel down.</p>	
Comparing fractions			<p>Moved from Y3: compare and order unit fractions, and fractions with the same denominators</p> <p>Vocab: Part, equal parts, fraction, one whole, unit fraction, compare, order, tenths, denominator, numerator.</p>	<p>•compare and order unit fractions, and fractions with the same denominators</p> <p>•recognise and show, using diagrams, equivalent fractions with small denominators</p> <p>Moved from Y4: recognise and show, using diagrams, families of common equivalent fractions</p> <p>Vocab:</p>	<p>•recognise and show, using diagrams, families of common equivalent fractions</p> <p>Vocab: Unit and non-unit fraction, equivalent.</p>	<p>•compare and order fractions whose denominators are all multiples of the same number</p> <p>•identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</p> <p>Vocab: Proper/improper fraction, equivalent fractions, mixed number, cancel down.</p>	<p>•use common factors to simplify fractions</p> <p>•use common multiples to express fractions in the same denomination</p> <p>•compare and order fractions, including fractions > 1</p> <p>Vocab: Proper/improper fraction, equivalent fractions, mixed number, cancel down.</p>

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				One/two/three thirds, equivalent, fifths, sixths, sevenths, eighths, ninths, decimal point, nought point one/two/three etc.			
Finding fractions of quantities				<ul style="list-style-type: none"> recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators Vocab: One/two/three thirds, equivalent, fifths, sixths, sevenths, eighths, ninths, decimal point, nought point one/two/three etc.	<ul style="list-style-type: none"> solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Vocab: Unit and non-unit fraction.		
Fraction calculations		Moved from Y2: write simple fractions for example, $1/2$ of 6 = 3 and recognise the equivalence of $2/4$ and $1/2$. Vocab: same/equal to, find half	*write simple fractions for example, $1/2$ of 6 = 3 and recognise the equivalence of $2/4$ and $1/2$. Moved from Y3: add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$] Vocab: Part, equal parts, fraction, one whole, unit fraction, compare, order, tenths, denominator, numerator.	<ul style="list-style-type: none"> add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$] Moved from Y4: add and subtract fractions with the same denominator (inc whole numbers) $2 \frac{1}{3} + 2 \frac{1}{3}$ Vocab: One/two/three thirds, equivalent, fifths, sixths, sevenths, eighths, ninths, decimal point, nought point one/two/three etc.	<ul style="list-style-type: none"> add and subtract fractions with the same denominator Vocab: Unit and non-unit fraction, mixed number	<ul style="list-style-type: none"> add and subtract fractions with the same denominator and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Moved from Y6: divide proper fractions by whole numbers Moved from Y6: multiply simple pairs of proper fractions, writing the answer in its simplest form Vocab: Proper/improper fraction, mixed number, cancel down, simplest form	<ul style="list-style-type: none"> add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form divide proper fractions by whole numbers Vocab: Proper/improper fraction, equivalent fractions, mixed number, cancel down.
Decimals as fractional amounts			Moved from Y3: count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Vocab: Part, equal parts, fraction, one whole, unit fraction, compare, order, tenths, denominator, numerator.	Try to fit this in (Y4 statement): find the effect of dividing a one- or two-digit number by 10 and 100 Moved from Y4: recognise and write decimal equivalents to $\frac{1}{10}$, $\frac{1}{100}$, $\frac{1}{1000}$ Vocab: One/two/three thirds, equivalent, fifths, sixths, sevenths, eighths, ninths, decimal point, nought point one/two/three etc.	<ul style="list-style-type: none"> recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{10}$, $\frac{1}{100}$ and $\frac{1}{1000}$, identifying the value of the digits in the answer as ones, tenths and hundredths Vocab: Hundredths, Unit and non-unit fraction, two/three decimal places, hundredths, decimal fraction,	<ul style="list-style-type: none"> read and write decimal numbers as fractions Moved from Y6: identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places Vocab: decimal and fraction equivalents.	<ul style="list-style-type: none"> associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction identify the value of each digit in numbers given to three decimal places Vocab: decimal and fraction equivalents.
Ordering decimals					<ul style="list-style-type: none"> round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places Moved from Y5: round decimals with two decimal places to the nearest whole number and to one decimal place Vocab: Tenths, hundredths, decimal place/point, round, order, compare.	<ul style="list-style-type: none"> recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with two decimal places to the nearest whole number and to one decimal place read, write, order and compare numbers with up to three decimal places Vocab: 3 decimal places, nearest whole, thousandths.	
Calculating with decimals						Moved from Y6: multiply one-digit numbers with up to two decimal places by whole numbers Vocab: 2 decimal places.	<ul style="list-style-type: none"> multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places multiply one-digit number with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places Vocab: 3 decimal places, nearest whole, thousandths, decimal equivalents.
Percentages						<ul style="list-style-type: none"> recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal Do if possible to lead into Y6 (Y6 statement) *begin to solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison Vocab: Per cent, %, percentage, fraction and decimal equivalent.	<ul style="list-style-type: none"> solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison Vocab: Per cent, %, percentage, fraction and decimal equivalent.
Fraction problems				<ul style="list-style-type: none"> solve problems using all fraction knowledge Vocab: One/two/three thirds, equivalent, fifths, sixths, sevenths, eighths, ninths, decimal point, nought point one/two/three etc.	<ul style="list-style-type: none"> solve simple measure and money problems involving fractions and decimals to two decimal places Moved from Y5: solve problems involving number up to three decimal places Vocab: Unit and non-unit fraction, two/three decimal places, hundredths, tenths, twentieth, proportion, mixed number, decimal fraction.	<ul style="list-style-type: none"> solve problems involving number up to three decimal places solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25 Vocab: Per cent, %, percentage, fraction and decimal equivalent, 3 decimal places.	<ul style="list-style-type: none"> solve problems which require answers to be rounded to specified degrees of accuracy recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. Vocab: Proper/improper fraction, mixed number, cancel down, percentage, %, per cent, 3 decimal places nearest whole, thousandths, decimal equivalents, fraction equivalents.
Ratio & Proportion						Do these if possible to lead into Y6 (They are Y6 statements) *begin to solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts *begin to solve problems involving unequal sharing (ratio) and grouping using knowledge of fractions and multiples. Vocab: Per cent, ratio	<ul style="list-style-type: none"> solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. Vocab: Per cent, ratio, proportion, scale factor.
Algebra						Do this if possible to lead into Y6 (Y6 statement) *use simple formulae (e.g. length x width, or $A=lw$) Vocab: formulae	<ul style="list-style-type: none"> use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of two variables. Vocab: sequence, inverse, BODMAS, algebra, equation

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Measures	<p>Vocab chn should use: heavier than, lighter than, more than, less than, longer, shorter, taller, full, empty, half full.</p> <p>Reception vocab linked to measure which may be used in provision (no end of year goal): Measure, size, compare, estimate, enough, too much/too little, too many/few, just under/over, LENGTH: length, width, height, long, short, tall, high, low, wide, narrow, deep, shallow, thick, thin, longer, shorter, higher, taller, longest, shortest, tallest, highest, near, far. MASS: weigh, weighs, balances, heavy/light, heavier/lighter, heaviest/lightest, scales, weight. CAPACITY: full, half, full, empty, container.</p>	<p>•compare, describe and solve practical problems for: length/height, weight/mass, capacity/volume & time</p> <p>•measure and begin to record length/height, weight/mass, capacity/volume & time</p> <p>Vocab: Guess, roughly, metre, ruler, metre stick, litre, kilogram,</p>	<p>•choose and use appropriate standard units to estimate and measure length/height (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</p> <p>•compare and order lengths, mass, volume/capacity and record the results using >, < and =</p> <p>Vocab: Measuring scale, further, furthest, metre (m), centimetre (cm), tape measure, metre stick, kilogram (kg), gram (g), half-kilogram (500g), capacity, litre (l), millilitre (ml), half litre (500ml), fortnight, quarter to/past, digital, analogue, timer, greater than, less than.</p>	<p>•measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</p> <p>Vocab: Division (reading scales), approximately, distance to/from/apart, mile, century, decade, calendar, date, am, pm, earliest, latest, perimeter, area, Roman Numerals, seconds, minutes, leap year, noon, midnight.</p>	<p>•Convert between different units of measure</p> <p>*estimate, compare and calculate different measures, including money in pounds and pence</p> <p>Vocab: Convert, measurement, unit/standard unit, metric unit, imperial unit, breadth, perimeter, area, millimetre (mm), mass, pint, measuring cylinder, square centimetres (cm²), millennium, leap year, timetable, arrive/depart.</p>	<p>•convert between different units of metric measure</p> <p>•understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</p> <p>•estimate volume and capacity</p> <p>Vocab: Volume, capacity, pounds (in weight), gallons, inches, pints, cubed/metres cubed.</p>	<p>•solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</p> <p>•use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to three decimal places convert between miles and kilometres</p> <p>Vocab: Volume, capacity, cubic m/cm³/km³/mm³, centilitre (cl).</p>
Mensuration				<p>•measure the perimeter of simple 2-D shapes</p> <p>Vocab: Perimeter, distance, centimetres.</p>	<p>•measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares</p> <p>Vocab: Perimeter, distance, centimetres, area, metres.</p>	<p>•measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</p> <p>•calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes</p> <p>Vocab: Volume, area, perimeter, square m/cm², formulae</p>	<p>•recognise that shapes with the same areas can have different perimeters and vice versa</p> <p>•recognise when it is possible to use formulae for area and volume of shapes</p> <p>•calculate the area of parallelograms and triangles</p> <p>•calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units.</p> <p>Area, square cm/m², formulae, volume, cubic cm/m³, perimeter, parallelogram</p>

Money	<p>Reception vocab linked to money, which may be used in provision (no end of year goal): Money, coin, penny, pence, pound, price, cost, buy, sell, spend, pay, change costs more or less, costs same as, how much/many?</p>	<p>•recognise and know the value of different denominations of coins and notes</p> <p>Vocab: one pence, two pence, five pence, fifty pence, one pound, two pounds, five pounds, ten pounds</p>	<p>•recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</p> <p>•find different combinations of coins that equal the same amounts of money</p> <p>•solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</p> <p>Vocab: £, p, bought, sold, amount, value</p>	<p>•add and subtract amounts of money to give change, using both £ and p in practical contexts</p> <p>Vocab: more/most expensive, less/least expensive, amount, value, worth, change.</p>	<p>*solve simple measure and money problems involving fractions and decimals to two decimal places.</p> <p>*solve addition and subtraction two-step problems in contexts (money), deciding which operations and methods to use and why.</p> <p>*Divide money using decimal notation appropriately.</p> <p>Vocab: Decimal notation, pounds, pence, four operations, two-step problem.</p>	<p>•use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling</p> <p>New vocab: Mass, volume, scaling.</p>	
Time	<p>Reception vocab linked to time, which may be used in provision (no end of year goal): time, days of week, day, week, birthday, morning, afternoon, evening, night, bedtime, dinnertime, playtime, today, tomorrow, yesterday, before, after, next, last, now, soon, quickest, quickly, slow, slowly, slowest, old, older, oldest, new, newer, newest, takes longer, takes less time, hour, o'clock, watch</p>	<p>•sequence events in chronological order using language recognise and use language relating to dates, including days of the week, weeks, months and years</p> <p>•tell the time to the hour and half past the hour and draw the hands on a clock face to show these times</p> <p>Vocab: O'clock, half past, seconds, Seasons, spring, summer, autumn, winter, weekend, month, year, midnight, fast, faster, fastest, how long ago? how long will it be to...? how long will it take to...? how often? always, never, often, sometimes, usually once, twice.</p>	<p>•compare and sequence intervals of time</p> <p>•tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times</p> <p>•know the number of minutes in an hour and the number of hours in a day</p> <p>Vocab: fortnight, quarter to/past, digital, analogue, timer.</p>	<p>•tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</p> <p>•estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</p> <p>•know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events</p> <p>Vocab: approximately, century, decade, calendar, date, am, pm, earliest, latest, digital, analogue, leap year, Roman Numerals, morning, afternoon, noon, midnight.</p>	<p>•Convert between different units of measure (e.g. Hours to minutes)</p> <p>•read, write and convert time between analogue and digital 12- and 24-hour clocks</p> <p>•solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</p> <p>Vocab: millennium, leap year, timetable, arrive/depart, analogue, digital, hours, minutes, seconds.</p>	<p>•solve problems involving converting between units of time</p>	<p>Time vocab covered in geography: GMT, British Summer Time, International Date Line, time zones, Prime meridian.</p>
Shape vocabulary	<p>Reception vocab linked to shape which may be used in provision (no end of year goal): Pattern, flat, curved, straight, round, hollow, solid corner, face, side, edge, end, sort, make, build, draw 3D SHAPES: cube sphere cone cuboid 2D SHAPES: circle triangle square rectangle star</p> <p>PATTERNS AND SYMMETRY size, bigger, larger, smaller, symmetrical, pattern repeating pattern, match.</p> <p>Vocab chn should use: 2D shapes, 3D shapes, triangle, square, rectangle, circle, pentagon, hexagon.</p>	<p>•recognise and name common 2-D shapes (e.g. Square, circle, triangle)</p> <p>•recognise and name common 3-D shapes (e.g. Cubes, cuboids, pyramids & spheres)</p> <p>Vocab: Hollow, pyramid, symmetrical, point, pointed, cylinder, sphere.</p>	<p>Vocab: Surface, circular, triangular, rectangular, pentagon, hexagon, octagon, cone, line of symmetry, fold, mirror line, reflection.</p>	<p>•identify horizontal and vertical lines and pairs of perpendicular and parallel lines</p> <p>Vocab: Horizontal, vertical, parallel, perpendicular, Right-angled, vertex, vertices, layer, diagram, hemi-sphere, prism, semi-circle, pentagonal, hexagonal, octagonal, quadrilateral, parallel, perpendicular, acute, obtuse.</p>	<p>Vocab: Construct, radius, diameter, net, angle, base, regular, irregular, concave, convex, 3D (three dimensional), spherical, cylindrical, tetrahedron, polyhedron, 2D (two dimensional), equilateral triangle, isosceles triangle, oblong, heptagon, polygon, line symmetry, reflect, translation, acute, obtuse, reflex, protractor.</p>	<p>Vocab: Congruent, octahedron, scalene triangle, reflective symmetry.</p>	<p>•illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</p> <p>Vocab: Circumference, radius, concentric, intersecting.</p>
Properties of 2-d shape			<p>•identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.</p> <p>•compare and sort common 2-D and 3-D shapes and everyday objects.</p> <p>Vocab: Surface, circular, triangular, rectangular, pentagon, hexagon, octagon, cone, line of symmetry, fold, mirror line, reflection.</p>	<p>•draw 2-D shapes</p> <p>*Begin to complete a simple symmetric figure with respect to a specific line of symmetry.</p> <p>Vocab: Horizontal, vertical, parallel, perpendicular, Right-angled, vertex, vertices, layer, diagram, hemi-sphere, prism, semi-circle, pentagonal, hexagonal, octagonal, quadrilateral, parallel, perpendicular, acute, obtuse, symmetry.</p>	<p>•compare and classify geometric shapes, including quadrilaterals and triangles, based on properties and sizes</p> <p>•identify lines of symmetry in 2-D shapes presented in different orientations</p> <p>•complete a simple symmetric figure with respect to a specific line of symmetry.</p> <p>Vocab: Construct, radius, diameter, net, angle, base, regular, irregular, concave, convex, 3D (three dimensional), spherical, cylindrical, tetrahedron, polyhedron, 2D (two dimensional), equilateral triangle, isosceles triangle, oblong, heptagon, polygon, line</p>	<p>•use the properties of rectangles to deduce related facts and find missing lengths and angles</p> <p>•distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p> <p>Vocab: octahedron, scalene triangle.</p>	<p>•draw 2-D shapes using given dimensions and angles compare and classify geometric shapes based on their properties and sizes</p> <p>Vocab: Circumference, radius, diameter, kite, parallelogram, rhombus, trapezium, dodecahedron, tangram, concentric, intersecting.</p>

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					symmetry, reflect, translation, acute, obtuse, reflex, protractor, degrees.		
Properties of 3-d shape			<ul style="list-style-type: none"> identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces identify 2-D shapes on the surface of 3-D shapes. compare and sort common 2-D and 3-D shapes and everyday objects <p>Vocab: Surface, circular, triangular, rectangular, pentagon, hexagon, octagon, cone, line of symmetry, fold, mirror line, reflection..</p>	<ul style="list-style-type: none"> make 3-D shapes using modelling materials recognise 3-D shapes in different orientations and describe them <p>Vocab: Horizontal, vertical, parallel, perpendicular Right-angled, vertex, vertices, layer, diagram, hemi-sphere, prism, semi-circle, pentagonal, hexagonal, octagonal, quadrilateral, parallel, perpendicular, acute, obtuse.</p>		<ul style="list-style-type: none"> identify 3-D shapes, including cubes and other cuboids, from 2-D representations <p>Vocab: Horizontal, vertical, parallel, perpendicular Right-angled, vertex, vertices, layer, diagram, hemi-sphere, prism, semi-circle, pentagonal, hexagonal, octagonal, quadrilateral, parallel, perpendicular, acute, obtuse, nets.</p>	<ul style="list-style-type: none"> recognise, describe and build simple 3-D shapes, including making nets find unknown angles in any triangles, quadrilaterals, and regular polygons <p>Vocab: Nets, polygons</p>
Angles			<ul style="list-style-type: none"> Begin to identify acute and obtuse angles 	<ul style="list-style-type: none"> recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles make a halfturn, three make three quarters of a turn and four a complete turn identify whether angles are greater or less than right angle identify acute and obtuse angles <p>Vocab: Right angle, obtuse, acute, half turn, degrees, three quarter turn compass point, north, south, east, west.</p>	<ul style="list-style-type: none"> Identify acute and obtuse angles and compare and order angles up to two right angles by size <p>Vocab: angle, acute, obtuse, reflex, protractor.</p>	<ul style="list-style-type: none"> know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (°) identify angles at a point and one whole turn (total 360°); at a point on a straight line and ½ a turn (total 180°) identify other multiples of 90° <p>Vocab: Vertex, vertices, angle, acute, obtuse, reflex, protractor.</p>	<ul style="list-style-type: none"> recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
Position & Direction	<p>Reception vocab linked to position and direction, which may be used in provision (no end of year goal): over, under above, below top, bottom, side, on, in outside, inside around, in front, behind front, back before, after beside, next to opposite apart between middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways across, close, far, near, along, through, to, from, towards, away from, movement, slide, roll, turn, stretch, bend.</p>	<ul style="list-style-type: none"> describe position, direction and movement, including whole, half quarter and three-quarter turns. <p>Vocab: Position, underneath, centre, journey, whole turn, half turn, quarter turn, three-quarter turn.</p>	<ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences. 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 ¾ turns <p>Vocab: Clockwise, anti-clockwise, route, higher, lower, right angle, straight line, right angle.</p>	<p>Fit this in if possible (Y4 statement):</p> <ul style="list-style-type: none"> describe positions on a 2-D grid as coordinates in the first quadrant <p>Vocab: Co-ordinates, quadrant, axis, map, plan, ascend, descend, grid, row, column, horizontal, vertical, diagonal.</p>	<ul style="list-style-type: none"> describe movements between positions as translations of a given unit to the left/right and up/down plot specified points and draw sides to complete a given polygon describe positions on a 2-D grid as coordinates in the first quadrant <p>Vocab: Plot, origin, co-ordinates, north-east, north-west, south-east, south-west, degree, set square, compasses, 4 quadrants X axis, Y axis.</p>	<ul style="list-style-type: none"> identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed Do this if possible to lead into Y6 (Y6 statement) describe positions on the full coordinate grid (all four quadrants) <p>Vocab: Origin, axes, axisreflective symmetry, rotation, rotate, translate, translation, quadrants, position.</p>	<ul style="list-style-type: none"> describe positions on the full coordinate grid (all four quadrants) draw and translate simple shapes on the coordinate plane, and reflect them in the axes. <p>Congruent, reflective symmetry, rotation, rotate, translate, translation, quadrants, position, plane, axes.</p>
Interpreting data	<p>Reception vocab linked to data, which may be used in provision (no end of year goal): Tick, cross, draw a line between, fill in, count, sort, group, list.</p>	<p>Fit this in if possible (Y2 statement):</p> <ul style="list-style-type: none"> interpret simple pictograms, tally charts, block diagrams and simple tables <p>Vocab: Set, table, chart, bar chart, pictogram, tally, vote, compare.</p>	<ul style="list-style-type: none"> interpret and construct simple pictograms, tally charts, block diagrams and simple tables <p>Vocab: Graph, block graph, most popular, most common, least popular, least common, title, label.</p>	<ul style="list-style-type: none"> interpret and present data using bar charts, pictograms and tables <p>Vocab: Frequency table, Carroll/Venn diagram (optional), axis, axes, show working, interpret.</p>	<ul style="list-style-type: none"> interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs <p>Vocab: Survey, questionnaire, data, bar chart, time graph.</p>	<ul style="list-style-type: none"> complete, read and interpret information in tables, including timetables <p>Vocab: Timetable, database.</p>	<ul style="list-style-type: none"> interpret and construct pie charts and line graphs calculate and interpret the mean as an average <p>Vocab: Mean average, (also mention mode/median and range), pie chart, statistics, distribution.</p>
Extract info from data			<ul style="list-style-type: none"> ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data <p>Vocab: Graph, block graph, most popular, most common, least popular, least common, title, label.</p>	<ul style="list-style-type: none"> solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables <p>Vocab: Frequency table, Carroll/Venn diagram (optional), axis, axes, show working, interpret.</p>	<ul style="list-style-type: none"> solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs <p>Vocab: Survey, questionnaire, data, bar chart, time graph.</p>	<ul style="list-style-type: none"> solve comparison, sum and difference problems using information presented in a line graph <p>Vocab: Line graph, bar line chart, maximum/minimum value.</p>	<ul style="list-style-type: none"> use pie charts and line graphs to solve problems <p>Vocab: Mean average, (also mention mode/median and range), pie chart, statistics, distribution.</p>