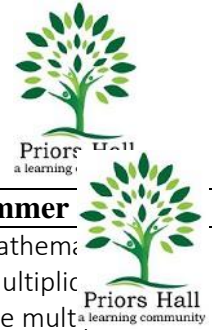


Autumn	Spring	Summer
<p>I can identify and represent numbers using objects and pictures, including the number line, and use the language of: equal to, more than, less than (fewer), most, least.</p> <p>I can find one more and one less than a given number.</p> <p>I know the addition and subtraction facts for all numbers to at least 5.</p> <p>I know all the pairs of numbers which add up to 10.</p> <p>I can use the number facts I already know (like number bonds of 5 and 10) and place value to add or subtract pairs of single digit numbers.</p> <p>I can count through ten when adding a single digit to another number.</p>	<p>I can remember number bonds to 10 and 20 and use this knowledge to solve subtraction problems. (for example, $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$).</p> <p>I know the effect of adding or subtracting zero to another number.</p> <p>I can skip count in 2s.</p> <p>I recognise odds and evens numbers.</p> <p>I know the addition doubles of all numbers to at least 5.</p> <p>I can identify near doubles using doubles already known. (for example $2 + 3 = 5$ because $2 + 2 = 4 + 1$ more).</p>	<p>I can represent and use number bonds and related subtraction facts within 20.</p> <p>I can use patterns of similar calculations.</p> <p>I can add 9 to a single digit number by adding 10 and subtracting 1.</p> <p>I can reorder numbers when doing addition, starting with the biggest number.</p> <p>I can identify half of numbers to 10.</p>

Non negotiables Year 2 Mental maths



Non negotiables Year 3 Mental maths

Autumn	Spring	Summer
<p>I can compare and order numbers from 0 up to 100; using $<$, $>$ and $=$ signs.</p> <p>I can partition numbers in different ways (for example, $23 = 20 + 3$ and $23 = 10 + 13$) to support subtraction.</p> <p>I can add and subtract to 20 to become increasingly fluent in finding facts such as using $3 + 7 = 10$; $10 - 7 = 3$ and $7 = 10 - 3$ to calculate $30 + 70 = 100$; $100 - 70 = 30$ and $70 = 100 - 30$.</p> <p>I check my calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, $5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5$). This establishes commutativity and associativity of addition.</p> <p>I can add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers - show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. <p>I can partition additions into tens and ones and then recombine. (For example $43 + 25 = 40 + 20 = 60$, $5 + 3 = 8$. $60 + 8 = 68$).</p> <p>I can recognise and use the inverse relationship between addition and subtraction to solve missing number problems.</p>	<p>I can use place value and number facts to solve problems.</p> <p>I can recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 ($30 + 70$)</p> <p>I can find a small difference by counting up from the smaller to the larger number.</p> <p>I can add or subtract 9, 19 11 or 21 by rounding and compensating. (For example $+ 19 = + 20 - 1$)</p> <p>I can add three small numbers by putting the largest number first and or find a pair totalling 10.</p> <p>I can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables.</p> <p>I can recognise odd and even numbers.</p>	<p>I can calculate mathematical statements for multiplication, division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs.</p> <p>I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p> <p>I am beginning to use other multiplication tables (like the 3X and 4X tables) and recall multiplication facts, including using related division facts to perform mental calculations.</p> <p>I know the doubles of all numbers to 10 and corresponding halves.</p> <p>I can identify near doubles. (For example $8 + 9 = 17$ because $8 + 8 = 16 + 1$).</p> <p>I can relate halving to fractions and measures (for example, $40 \div 2 = 20$, 20 is a half of 40). I use commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$).</p> <p>I can partition into five and a bit when adding 6 7 8 or 9 then recombine.</p>

Autumn	Spring	Summer
<p>I can partition additions into tens and ones and then recombine. (For example $43 + 25 = 40 + 20 = 60$, $5 + 3 = 8$. $60 + 8 = 68$).</p> <p>I know the addition and subtraction facts for all numbers to 20.</p> <p>I can find a small difference by counting up from the smaller to the larger number.</p> <p>I can reorder numbers in a calculation. (For example starting with the largest number when adding).</p> <p>I can add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds. <p>I can use my knowledge of number facts and place value to add or subtract pairs of numbers.</p> <p>I can say or write a subtraction statement corresponding to a given addition statement. (For example if I'm given $24 + 35 = 59$ then $59 - 35 = 24$, or $59 - 24 = 35$).</p>	<p>I can add 3 or 4 small numbers by putting the largest number first and / or by finding pairs totalling 9, 10 or 11.</p> <p>I can add or subtract mentally a near multiple of 10 to or from a 2 digit number.</p> <p>I can bridge through a multiple of 10 and then readjust.</p> <p>I can use my knowledge of number facts and place value to multiply or divide by 2, 5, 10 or 100.</p> <p>I can recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</p> <p>I know that to multiply a number by 10 /or 100 it shifts its digits 1 or 2 places to the left.</p> <p>I know all pairs of multiples of 5 with a total of 100.</p>	<p>I know all pairs of multiples of 100 with a total of 1000.</p> <p>I can say or write a division statement corresponding to a given multiplication statement. (For example $24 \div 6 = 4$ because $6 \times 4 = 24$).</p> <p>I can use patterns of similar calculations. (For example $2 + 8 = 10$, $20 + 80 = 100$, $200 + 800 = 1000$).</p> <p>I can recognise, find and write fractions of a set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>I am confident doubling or halving a given number.</p> <p>I can identify near doubles. (For example $18 + 19 = 37$ because $18 + 18 = 36 + 1$).</p> <p>I know what strategies I can use to mentally solve addition, subtraction, multiplication and division problems.</p>

Autumn	Spring	Summer
<p>I can find 1000 more or less than a given number.</p> <p>I can round any number to the nearest 10, 100 or 1000.</p> <p>I can count backwards through zero to include negative numbers.</p> <p>I can reorder numbers in a calculation. (For example starting with the largest number when adding).</p> <p>I can add numbers by partitioning them into 10s and 1s adding the 10s first.</p> <p>I can add 3 two digit multiples of 10.</p> <p>I can add or subtract 9, 19 or 29, 11, 21 or 31 by rounding and compensating. (For example $54 + 29 = 54 + 30 - 1$).</p> <p>I can add or subtract the nearest multiple of 10 then adjust. (For example $86 - 49 = 86 - 50 + 1$).</p>	<p>I can bridge through 100 when adding.</p> <p>I can add 3 or 4 small numbers finding pairs totalling 10.</p> <p>I continue to use the relationship between addition and subtraction to work out inverse statements. (For example if $64 + 29 = 93$ then $93 - 29 = 64$ and $93 - 64 = 29$).</p> <p>I can use knowledge of number facts and place value to add or subtract any pair of 2 digit numbers.</p> <p>I can recall multiplication and division facts for multiplication tables up to 12×12.</p> <p>I can use place value, known and derived facts to multiply and divide mentally, including:</p> <ul style="list-style-type: none"> - multiplying by 0 and 1; - dividing by 1; - multiplying together three numbers. <p>I can multiply by 10 and then 100.</p>	<p>I can find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</p> <p>I can partition to carry out multiplication.</p> <p>I can recognise and use factor pairs and commutativity in mental calculations. (For example $8 \times 7 = 56$ so $56 \div 8 = 7$).</p> <p>I can double any 2 digit number by doubling the 10s first.</p> <p>I can identify near doubles. (For example $18 + 19 = 37$ because $18 + 18 = 36 + 1$).</p> <p>I can round decimals with one decimal place to the nearest whole number.</p> <p>I know what strategies I can use to mentally solve addition, subtraction, multiplication and division problems.</p>

Autumn	Spring	Summer
<p>I can count up through the next multiple of 10, 100 or 1000.</p> <p>I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.</p> <p>I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</p> <p>I can partition into 100s, 10s and ones adding the most significant first.</p> <p>I can use known number facts and place value to add or subtract pairs of 3 digit multiples, multiples of 10 and 2 digit numbers with one decimal place.</p> <p>I can reorder numbers in a calculation. (For example starting with the largest number when adding).</p> <p>I can add several numbers together.</p>	<p>I can add and subtract numbers mentally with increasingly large numbers. I practise mental calculations with increasingly large numbers to aid fluency. (For example, $12\ 462 - 2300 = 10\ 162$).</p> <p>I can add or subtract the nearest multiple of 10 then adjust. (For example $586 - 249 = 586 - 200 - 50 + 1$).</p> <p>I have a clear understanding of the relationship between addition and subtraction and am exploring and developing knowledge of inverses.</p> <p>I can recall multiplication and division facts for multiplication tables up to 12×12.</p> <p>I can multiply and divide numbers mentally drawing upon known facts.</p> <p>Use closely related facts to carry out multiplication and division. (For example $14 \times 2 = 28$ so $14 \times 20 = 280$).</p> <p>I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p>	<p>I can partition to carry out multiplication or division.</p> <p>I can use the relationship between multiplication and division.</p> <p>I know how to find all the factors of a given number.</p> <p>I can double any 2 digit number by doubling the 10s first.</p> <p>I can identify near doubles. (For example $18 + 19 = 37$ because $18 + 18 = 36 + 1$).</p> <p>I can double and half decimals.</p> <p>I can round decimals with two decimal places to the nearest whole number and to one decimal place.</p>

Autumn	Spring	Summer
<p>I can identify the value of each digit in numbers given, to three decimal places.</p> <p>I can multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.</p> <p>I can add or subtract the nearest multiple of 10, 100 or 1000 and then adjust. (For example $4586 - 2998 = 4586 - 2000 - 1000 + 2$).</p> <p>I can reorder numbers in a calculation. (For example knowing that addition and multiplication can be done in any order).</p> <p>I have a clear understanding of the relationship between addition and subtraction and am exploring and developing knowledge of inverses.</p> <p>I can use my knowledge of number facts and place value to add or subtract pairs of 3 digit multiples of 10 and 2 digit numbers with 1 decimal place.</p> <p>I can doubling and halve whole numbers.</p>	<p>I can double and halve decimals.</p> <p>I can use my knowledge of number facts and place value to multiply or divide.</p> <p>I can partition to carry out multiplication or division.</p> <p>I know how to find all the factors of a given number.</p> <p>I have a strong understanding of all strategies for all 4 operations.</p>	<p>I can find all square numbers to 100.</p> <p>I can use my knowledge of number facts and place value to add and subtract mentally.</p> <p>I can use my knowledge of number facts and place value to add and subtract numbers with 1 and 2 decimal places.</p> <p>I know how to find all prime numbers to at least 20 (but within 100).</p>