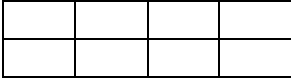


Number Level 4		
<i>Counting and Number facts</i>		
<ul style="list-style-type: none"> Creates sets of number multiples 	<ul style="list-style-type: none"> We are learning about number multiples. We are learning to identify and make a group of multiples that equal a given number. 	<ul style="list-style-type: none"> We are looking to see if you can explain what number multiples are. We are looking to see if you can find and list a group of multiples that equal a given number. <p>For example, 100 multiples are: 25 and 4, 50 and 2 etc.....</p>
<ul style="list-style-type: none"> Creates sets of number factors 	<ul style="list-style-type: none"> We are learning about number factors. We are learning to identify and make a group of factors that equal a given number. 	<ul style="list-style-type: none"> We are looking to see if you can explain what number factors are. We are looking to see if you can find and list a group of factors that divide equally into a given number. <p>For example, factors of 12 are 1,2,3,4,6 and 12</p>
<ul style="list-style-type: none"> Identifies lowest common multiples of numbers 	<p>We are learning about the lowest common multiples of numbers.</p>	<p>We are looking to see if you can explain the lowest common multiple of any given number.</p> <p>For example, lowest common multiple (LCM) for 24 is 4 and 6.</p>
<ul style="list-style-type: none"> Identifies the highest common factor of two or more numbers 	<p>We are learning to find the highest common factor (HCF) of two or more numbers.</p>	<p>We are looking to see if you can find and explain the highest common factor (HCF) of two or more numbers.</p> <p>For example, 25 and 20 HCF = 5</p>

<ul style="list-style-type: none"> Shows factors as rectangular arrays e.g. 1 x 12, 2 x 6 	<ul style="list-style-type: none"> We are learning about rectangular arrays. We are learning to show factors as rectangular arrays. 	<ul style="list-style-type: none"> We are looking to see if you can explain what a rectangular array is. We are looking to see if you can show factors as a rectangular array. <p>4X2=8</p> 
<ul style="list-style-type: none"> Identifies square, prime and composite numbers 	<ul style="list-style-type: none"> We are learning about square numbers. We are learning about prime numbers. We are learning about composite numbers. 	<ul style="list-style-type: none"> We are looking to see if you can explain and show what a square number is. We are looking to see if you can explain and show what a prime number is. We are looking to see if you can explain and show what a composite number is.
Place Value		
<ul style="list-style-type: none"> Orders numbers from thousandths to millions 	<p>We are learning to model, write, read and order numbers to millions.</p> <p>We are learning to model, write, read and order numbers to the thousandths (to three decimal places)</p>	<p>What we are looking for is that you can model, write and read numbers to millions.</p> <p>What we are looking for that you can order numbers to millions.</p> <p>What we are looking for is that you can order numbers to thousandths (to three decimal places)</p>
<ul style="list-style-type: none"> Models and places integers (positive and negative whole numbers and zero) on a number line 	<p>We are learning to model positive and negative numbers and zero on a number line.</p> <p>We are learning to place positive and negative numbers and zero on a number line.</p>	<p>What we are looking for is that you can show positive and negative numbers and show zero on a number line.</p> <p>What we are looking for is that you can place positive and negative numbers and zero on a number line</p>
Operations		

<ul style="list-style-type: none"> Recognises and calculates simple powers of whole numbers e.g. $2^4 = 2 \times 2 \times 2 \times 2 = 16$ 	<p>We are learning to recognise simple powers of whole numbers.</p> <p>We are learning to calculate simple powers of whole numbers.</p>	<p>Ability to recognise and understand power symbol.</p> <p>Ability to calculate the value of the number with the power symbol.</p>
<ul style="list-style-type: none"> Calculates and records algorithms for the four operations using natural numbers 	<p>We are learning to represent and solve addition number problems using the correct algorithm.</p> <p>We are learning to represent and solve subtraction number problems using the correct algorithm.</p> <p>We are learning to represent and solve multiplication number problems using the correct algorithm.</p> <p>We are learning to represent and solve division number problems using the correct algorithm.</p>	<p>Ability to correctly set out and solve an addition problem as an algorithm, with numbers in correct place value positions and using bridging where necessary.</p> <p>Ability to correctly set out and solve a subtraction problem as an algorithm, with numbers in correct place value positions and using decomposition where necessary.</p> <p>Ability to correctly set out and solve a multiplication problem as an algorithm, with numbers in correct place value positions and using bridging where necessary.</p> <p>Ability to correctly set out and solve a division problem as an algorithm, with numbers in correct place value positions and using decomposition where necessary.</p>
<ul style="list-style-type: none"> Uses estimates for computation and determines if it is a reasonable estimate 	<p>We are learning to make estimates when doing computations.</p> <p>We are learning to assess our estimates as reasonable or unreasonable.</p>	<p>Ability to make an estimate that is close to the answer.</p> <p>Ability to compare the answer to the estimate and determine how reasonable the estimate was.</p>
<p><i>Fractions</i></p>		
<ul style="list-style-type: none"> Models and places common fractions on a number line 	<p>We are learning to order fractions according to their value (size)</p>	<p>We are looking for students to show that they can place common fractions on a number line.</p> <p>We are looking for students to show that they can demonstrate common fractions as a model.</p> <p>We are looking for students to show that they can demonstrate common fractions in written form.</p>

<ul style="list-style-type: none"> Shows equivalence of fractions, decimals, ratios and percentages 	<p>We are learning to identify fractions that are equivalent.</p>	<p>We are looking for students to use materials and illustrations to show equivalent fractions of a whole. We are looking for students to use materials and illustrations to show equivalent fractions of a group.</p>
<ul style="list-style-type: none"> Adds, subtracts, and multiplies fractions 	<p>We are learning to add fractions with like denominators. We are learning to add fractions with unlike denominators. We are learning to subtract fractions with like denominators. We are learning to subtract fractions with unlike denominators. We are learning to multiply fractions with another fraction. We are learning to multiply fractions with a whole number.</p>	<p>We are looking for students to use fraction notation to demonstrate the addition of fractions with like denominators. We are looking for students to use fraction notation to demonstrate the addition of fractions with unlike denominators. We are looking for students to use fraction notation to demonstrate the subtraction of fractions with like denominators. We are looking for students to use fraction notation to demonstrate the subtraction of fractions with unlike denominators. We are looking for students to use fraction notation to demonstrate the multiplication of fractions with a whole. We are looking for students to use fraction notation to demonstrate the multiplication of fractions with a fraction.</p>
<p><i>Decimals, percentages and ratios</i></p>		
<ul style="list-style-type: none"> Models and places decimals on a number line 	<p>We are learning to model decimals. We are learning to place decimals on a number line.</p>	<p>What we are looking for is that you can use decimals in an everyday task. What we are looking for is that you can place decimals on a number line.</p>

<ul style="list-style-type: none"> Shows equivalence of fractions, decimals, ratios and percentages 	<p>We are learning to identify fractions that are equivalent.</p>	<p>We are looking for students to use materials and illustrations to show equivalent fractions of a whole. We are looking for students to use materials and illustrations to show equivalent fractions of a group.</p>
<ul style="list-style-type: none"> Adds, subtracts, and multiplies decimals to two decimal places including money 		
<p>Structure</p>		
<ul style="list-style-type: none"> Forms sets of numbers according to given criteria and conditions (e.g. 6, 12, 18,24 are the even numbers less than 30 that are also multiples of 3) 	<p>We are learning to use multiples.</p> <p>We are learning to use factors.</p> <p>We are learning to use square numbers. We are learning to use prime and composite numbers.</p>	<ul style="list-style-type: none"> - find all of the numbers using the multiplication process to equal a given number. Eg. $2 \times 5 = 10$, $1 \times 10 = 10$ - correct recording of multiples. Eg. 10 (1,10) (2,5) - find all of the numbers using the division process that divide exactly in any given number. Eg. The factors of 20 are 20, 10, 5, 4, 2 and 1. - multiplication of a given number by itself. - show the difference between prime and composite numbers - using the division process show whether numbers are prime or composite
<ul style="list-style-type: none"> Constructs and use rules for sequences of numbers by recursion and by formula 	<p>We are learning that to get to the next number in a sequence of numbers we need to know the previous number</p>	<p>We are looking for recognition of patterns in numbers Use the patterns and rules to apply to the next number in sequence</p>

<ul style="list-style-type: none"> Establishes equivalence relationships between mathematical expressions e.g. $3 \times 26 = (3 \times 20) + (3 \times 6)$ 	<p>Today we are learning that equals means the same as and that \neq sign means not the same as.</p> <p>Today we are learning to recognise equivalent fractions.</p> <p>Today we are learning to change a fraction into its lowest common form.</p> <p>Today we are learning to rename fractions and their equivalent decimal/percentage</p>	<ul style="list-style-type: none"> - we are comparing both sides of an equation by using the correct symbol in the middle - an understanding that different fractions can be equal eg. $\frac{2}{4} = \frac{1}{2}$ - multiply the denominator and numerator by the same number - divide the denominator and numerator by the same number - demonstration of correct processes to show understanding - correct use of the decimal point
<ul style="list-style-type: none"> Recognises that addition and subtraction, and multiplication and division are inverse operations 	<p>Today we are learning that addition and subtraction are the inverse of one another</p> <p>Today we are learning that division and subtraction are the inverse of one another</p>	<ul style="list-style-type: none"> - check our answers using the inverse process i.e. – for + and visa versa - check our answers using the inverse process i.e. – x for division and visa versa
<ul style="list-style-type: none"> Uses words and symbols to form simple equations 	<p>Today we are learning to form simple equations using different words and symbols (difference, sum of, product, quotient, divisible, shared, power of, + -= : % () √ ≠)</p>	<ul style="list-style-type: none"> Use of correct terminology during explanation (ie explain it to a friend/partner) Use words addition/subtraction/inverse Correct usage of numbers to inverse when checking answers Correct setting out of equation
<p><i>Working mathematically</i></p>		
<ul style="list-style-type: none"> Uses computers to investigate and implement algorithms and explore number facts. 		