

Y5	Pupils will:	Stem sentences	Generalisations
Wk1	<ul style="list-style-type: none"> <li>secure the knowledge that when a factor is multiplied by 1 the size/quantity remains the same</li> <li>explore contexts where 1 is a factor</li> <li>recap that when a factor is multiplied by 1 the size/quantity remains the same</li> <li>generalise that when you multiply a number by 1, it stays the same</li> <li>continue to explore contexts where 1 is a factor</li> <li>recap knowledge about a product when 1 is a factor</li> <li>continue to explore contexts where 1 is a factor</li> <li>write multiplication stories where 1 is a factor</li> <li>recap knowledge about a product when 1 is a factor</li> <li>apply knowledge of <math>\times 10</math> in a range of contexts and with larger numbers</li> </ul>	<ul style="list-style-type: none"> <li>The product of 1 and _____ is _____. The product of _____ and 1 is _____.</li> <li>The _____ is 1 times the _____ of the _____.</li> </ul>	<ul style="list-style-type: none"> <li>When 1 is a factor, the product is equal to the other factor (if there are only two factors).</li> <li>When a number is multiplied by 1, it stays the same.</li> <li>To multiply a whole number by 10, place a zero after the final digit of that number.</li> <li>All multiples of 10 have a 1s digit of zero.</li> </ul>
Wk2	<ul style="list-style-type: none"> <li>recap that when the factors are the same, the product is a square number</li> <li>explore how a multiplication equation can represent a multiplicative context</li> <li>recap how a multiplication equation can represent a multiplicative context</li> <li>represent multiplicative contexts using unitised counters and equations, identifying the size of each unit and the number of units</li> <li>use an equation and identify what each number represents</li> <li>recap how unitised counters and equations can represent repeated units</li> <li>draw representations and write equations to match a maths story</li> <li>recap how a multiplication equation can represent a multiplicative context</li> <li>make links between corresponding multiplication and division equations</li> <li>recap links between corresponding multiplication and division equations</li> <li>consider how multiplication and division equations represent the same multiplicative context</li> </ul>	<ul style="list-style-type: none"> <li>_____, _____ times equals _____. _____ equal _____.</li> </ul>	<ul style="list-style-type: none"> <li>The value of the product in a multiplication equation becomes the value of the dividend in the corresponding division equation.</li> <li>The values of the factors in a multiplication equation become the values of the divisor and quotient in the corresponding division equation.</li> </ul>

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Wk3	<ul style="list-style-type: none"> <li>• recap how multiplication and division equations represent the same multiplicative context</li> <li>• make links between multiplication and division equations</li> <li>• use an array to connect the product and the dividend</li> <li>• recap writing corresponding division equations for a given multiplication equation</li> <li>• write multiplication and division equations to match an array</li> <li>• use known multiplication facts to work out a missing larger factor</li> <li>• recap how to use known multiplication facts to work out a missing factor</li> <li>• connect a multiplication equation with a missing factor to a division equation</li> <li>• find a missing factor or product on a rectangle</li> <li>• recap how to use known multiplication facts to work out a missing factor</li> <li>• connect a multiplication equation with a missing factor to a division equation</li> <li>• find a missing factor or product on a rectangle</li> <li>• identify correct and incorrect multiplication and division equations</li> <li>• find all the factors for a given product</li> <li>• write equations and draw representations to match a given product/dividend</li> <li>• create maths stories to match a given product/dividend</li> </ul>	<ul style="list-style-type: none"> <li>• The value of the product and dividend is _____ .</li> </ul>	<ul style="list-style-type: none"> <li>• The value of the product in a multiplication equation becomes the value of the dividend in the corresponding division equation.</li> <li>• The values of the factors in a multiplication equation become the values of the divisor and quotient in the corresponding division equation.</li> </ul>
Wk4	<ul style="list-style-type: none"> <li>• recap how numbers in multiplication and division equations are related</li> <li>• write corresponding core multiplication facts for given equations</li> <li>• recap writing corresponding core multiplication facts for given equations</li> <li>• write corresponding equations for facts beyond known times tables</li> <li>• recap how numbers in multiplication and division equations are related</li> <li>• represent and write multiplication stories involving unitising</li> <li>• identify maths stories that match a multiplication expression</li> <li>• recap writing multiplication stories involving unitising</li> <li>• write multiplication stories involving scaling using a given context</li> <li>• recap writing multiplication stories involving scaling using a given context</li> <li>• identify maths stories that match a division expression</li> <li>• write division maths stories to match division expressions</li> </ul>		<ul style="list-style-type: none"> <li>• The value of the product in a multiplication equation becomes the value of the dividend in the corresponding division equation.</li> </ul>

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Wk5	<ul style="list-style-type: none"> <li>recap connecting equations to maths stories</li> <li>apply known facts to different contexts</li> <li>use a ratio table</li> <li>recap how to find a missing value in a ratio table</li> <li>apply known facts to contexts when multiplying by 10</li> <li>recap applying known facts to contexts when multiplying by 10</li> <li>continue to use a ratio table</li> <li>recap multiplying by 10</li> <li>explore contexts when multiplying by 100</li> <li>recap exploring contexts when multiplying by 100</li> <li>practise finding missing information when multiplying by 10 and 100</li> </ul>	<ul style="list-style-type: none"> <li>If I multiply the number of _____ by _____, I multiply the number of _____ by _____.</li> <li>_____ is 10 times the _____ of _____. _____ 10 times equals _____.</li> <li>_____ is 100 times the _____ of _____.</li> </ul>	
Wk6	<ul style="list-style-type: none"> <li>practise finding missing information in a ratio table</li> <li>develop their understanding of how to describe a multiplicative relationship</li> <li>connect multiplying by <math>\frac{1}{10}</math> to dividing by 10</li> <li>recap that multiplying by <math>\frac{1}{10}</math> is the same as dividing by 10</li> <li>use a ratio table to make further connections between multiplication and division</li> <li>recap using a ratio table when dividing by 10</li> <li>develop their understanding of how to describe a multiplicative relationship when multiplying or dividing by 100.</li> <li>recap that multiplying by <math>\frac{1}{100}</math> is the same as dividing by 100</li> <li>use a ratio table to reinforce connections between multiplication and division</li> <li>practise describing a multiplicative relationship when multiplying or dividing by 10 and 100</li> <li>write a maths story using information provided in a ratio table</li> </ul>	<ul style="list-style-type: none"> <li>If I multiply _____ by 10, I multiply _____ by 10. If I divide _____ by 10, I divide _____ by 10.</li> <li>If I multiply _____ by _____, I multiply _____ by _____.</li> <li>If I divide _____ by _____, I divide _____ by _____.</li> <li>If I multiply _____ by 100, I multiply _____ by 100. If I divide _____ by 100, I divide _____ by 100.</li> </ul>	<ul style="list-style-type: none"> <li>The value of the product in a multiplication equation becomes the value of the dividend in the corresponding division equation.</li> </ul>

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Wk7	<ul style="list-style-type: none"> <li>recap that multiplying by <math>\frac{1}{10}</math> is the same as dividing by 10</li> <li>find a unit fraction of a number by dividing by the denominator (when the denominator is 2)</li> <li>represent the structure of the maths using a bar model</li> <li>recap how to find a unit fraction of a number when the denominator is 2</li> <li>find a unit fraction of a number when the denominator is 3, 4 or 5</li> <li>recap how to find a unit fraction of a number when the denominator is 3, 4 or 5</li> <li>notice that when a number is multiplied by a unit fraction that is less than 1, it decreases</li> <li>find a unit fraction of a number when the denominator is 6, 7, 8, 9, 11 or 12.</li> <li>recap finding a unit fraction of a number</li> <li>generalise that when you multiply a number by 1, it stays the same; when you multiply by more than 1, it increases; and when you multiply by less than 1, it decreases (in a range of contexts)</li> <li>recap that multiplying a number by a unit fraction is the same as dividing the number by the denominator</li> <li>apply the generalisations that when you multiply a number by 1, it stays the same; when you multiply by more than 1, it increases; and when you multiply by less than 1, it decreases</li> <li>practise applying known facts</li> </ul>	<ul style="list-style-type: none"> <li>Multiplying _____ by _____ is the same as dividing _____ by _____.</li> </ul>	<ul style="list-style-type: none"> <li>When a number (&gt;0) is multiplied by a unit fraction that is less than 1, it decreases.</li> <li>When a number is multiplied by 1, it stays the same.</li> <li>When a number (&gt;0) is multiplied by more than 1, it increases.</li> <li>When a number (&gt;0) is multiplied by less than 1, it decreases.</li> </ul>
Wk8	<ul style="list-style-type: none"> <li>multiply a unit fraction by a whole number, seeing the whole number as the number of times the fraction is repeated</li> <li>know that when the numerator is a multiple of the denominator, the fraction is equivalent to a whole number (in this case, for the denominators 2 to 5)</li> <li>see the structure of the maths using unitised counters</li> <li>multiply a unit fraction by a whole number, seeing the whole number as the number of times the fraction is repeated</li> <li>know that when the numerator is a multiple of the denominator, the fraction is equivalent to a whole number (in this case, for the denominators 2 to 5)</li> <li>see the structure of the maths using unitised counters</li> </ul>	<ul style="list-style-type: none"> <li>There are _____ intervals between 0 and 1. This means we are counting in units of _____.</li> <li>_____ <math>\frac{1}{\square}</math> s equal _____.</li> </ul>	<ul style="list-style-type: none"> <li>When the numerator is a multiple of the denominator, the fraction is equivalent to a whole number.</li> </ul>

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	<ul style="list-style-type: none"> <li>recap contexts in which the unit fraction is the number that is operated upon (the unit size)</li> <li>create a maths story and write equations to match.</li> <li>recap contexts in which the unit fraction is the number that is operated upon (the unit size)</li> <li>know that when the numerator is a multiple of the denominator, the fraction is equivalent to a whole number (here, for the denominators 6 to 12)</li> <li>represent maths stories in which the unit fraction is the number that is operated upon or in which it is the multiplier</li> <li>recap maths stories in which the unit fraction is the number that is operated upon or in which it is the multiplier</li> <li>create and represent maths stories in which the unit fraction is the number that is operated upon or in which it is the multiplier</li> </ul>		
Wk9	<ul style="list-style-type: none"> <li>generalise about odd and even products</li> <li>explore the multiplicative relationships between products within a times table</li> <li>recap the multiplicative relationships between products within a times table</li> <li>describe the multiplicative relationships</li> <li>apply their understanding of multiplicative relationships to find missing numbers</li> <li>recap the multiplicative relationships between products within a times table</li> <li>explore the multiplicative relationships between two different times tables</li> <li>apply their understanding of multiplicative relationships to find missing numbers.</li> <li>recap the multiplicative relationships between two different times tables</li> <li>consider how a ratio table shows a relationship between four numbers</li> <li>apply their understanding of multiplicative relationships to find missing numbers</li> <li>apply their understanding of multiplicative relationships to find missing values in a ratio table</li> <li>consider whether four numbers presented in a grid have a ratio relationship</li> </ul>	<ul style="list-style-type: none"> <li>_____ times _____ equals _____ .</li> <li>_____ divided by _____ equals _____ .</li> </ul>	<ul style="list-style-type: none"> <li>Where at least one of the factors is even, the product is even.</li> <li>Where none of the factors are even, the product is odd.</li> </ul>
Wk10	<ul style="list-style-type: none"> <li>explore multiplicative relationships when 1 is a factor</li> <li>apply their understanding of multiplicative relationships within ratio tables when one of the numbers is 1</li> </ul>	<ul style="list-style-type: none"> <li>The number of _____ is ALWAYS _____ times the number of _____ .</li> </ul>	<ul style="list-style-type: none"> <li>Where there are two factors when 1 is a factor, the product is equal to the other factor.</li> </ul>

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	<ul style="list-style-type: none"> <li>• find missing information in a ratio table</li> <li>• recap finding missing information in a ratio table</li> <li>• explore the multiplicative relationship between two different nouns in a maths story</li> <li>• describe horizontal and vertical multiplicative relationships between numbers in a ratio table representing a maths story</li> <li>• apply their understanding of multiplicative relationships within a ratio table to identify missing numbers.</li> <li>• continue to apply their understanding of multiplicative relationships within a ratio table to identify missing numbers</li> <li>• represent their own maths stories in a ratio table</li> <li>• continue to apply their understanding of multiplicative relationships within a ratio table to identify missing numbers</li> <li>• practise finding missing information in a ratio table</li> </ul>		
Wk11	<ul style="list-style-type: none"> <li>• recap how to find a missing quotient using a known multiplication fact</li> <li>• continue to make connections between multiplication and division equations</li> <li>• use these connections to work out missing numbers</li> <li>• recap finding missing numbers using connections between multiplication and division equations</li> <li>• represent a maths story to see how the numbers are connected.</li> <li>• recap representing a maths story to see how the numbers are connected</li> <li>• explore maths stories where multiplication and addition equations are used to tell the story</li> <li>• recap exploring maths stories where multiplication and addition equations are used to tell the story</li> <li>• explore partitive and quotitive division contexts where there is or is not a remainder</li> <li>• recap a division context where there is a remainder</li> <li>• practise using connections between multiplication and addition equations and division equations</li> <li>• use these connections to work out missing numbers</li> </ul>		<ul style="list-style-type: none"> <li>• The value of the product in a multiplication equation becomes the value of the dividend in the corresponding division equation.</li> <li>• The value of the dividend in a division equation becomes the value of the product in the corresponding multiplication equation.</li> <li>• The values of the divisor and quotient in a division equation become the values of the factors in the corresponding multiplication equation.</li> </ul>

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Wk12	<ul style="list-style-type: none"> <li>• recap using connections between multiplication and addition equations and division equations to find missing numbers</li> <li>• combine multiples of 4 to create multiples of 4 that are greater than 40</li> <li>• partition multiples of 4 that are greater than 40 into 40 and a remaining part</li> <li>• calculate how many 4s are in a multiple of 4 that is greater than 40 and less than 80</li> <li>• recap calculating how many 4s are in multiples of 4 that are greater than 40 and less than 80</li> <li>• explore how multiples of 4 can be halved twice to give a whole number</li> <li>• explain why 80 is a multiple of 4</li> <li>• calculate how many 4s are in a multiple of 4 that is greater than 40 and less than 100</li> <li>• recap calculating how many 4s are in multiples of 4 that are greater than 40 and less than 100</li> <li>• explore why all multiples of 4 are even</li> <li>• explore why not all even numbers are multiples of 4</li> <li>• recap identifying multiples of 4 by sorting numbers into 'multiples of 4' and 'NOT multiples of 4'</li> <li>• explore why 100 is a multiple of 4</li> <li>• use the fact that 100 is a multiple of 4 to explore why all multiples of 100 are also multiples of 4</li> <li>• recap identifying numbers that are multiples of 4</li> <li>• practise recalling multiplication and division facts using the worksheet provided</li> </ul>		<ul style="list-style-type: none"> <li>• If a number is a multiple of 4, halving twice gives a whole number.</li> <li>• Where at least one of the factors is even, the product is even.</li> </ul>
Wk13	<ul style="list-style-type: none"> <li>• recap that all multiples of 100 are also multiples of 4</li> <li>• identify multiples of 4 that are less than 100</li> <li>• create three-digit multiples of 4 by combining multiples of 100 and two-digit multiples of 4</li> <li>• recap identifying three-digit multiples of 4 by partitioning them into multiples of 100 and two-digit multiples of 4</li> <li>• identify four-digit multiples of 4 by partitioning them into multiples of 100 and two-digit multiples of 4</li> <li>• identify a multiple of 4 greater than two digits by looking at the final two-digit number</li> </ul>		<ul style="list-style-type: none"> <li>• For whole numbers with more than two digits – if the final two-digit number is a multiple of 4, then the whole number is a multiple of 4.</li> </ul>



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	<ul style="list-style-type: none"><li>• create multiples of 4 using a generalised statement</li><li>• recap multiples of 4 and multiples of 100 by sorting numbers onto a Venn diagram</li><li>• calculate missing numbers in equations related to multiples of 4 that are less than 100</li><li>• explore whole numbers that lie between multiples of 4 and write corresponding equations</li><li>• recap using the generalised statement to identify larger multiples of 4</li><li>• identify whether division expressions and improper fractions can be expressed as a whole number by sorting them into a table</li><li>• explore maths stories and consider what happens to the amount remaining after dividing by 4</li><li>• recap facts from the 4 times table using ratio tables</li><li>• identify which ratio tables are correct and which are incorrect</li><li>• practise recalling multiplication and division facts using the worksheet provided</li></ul>		
Wk14	<ul style="list-style-type: none"><li>• recap identifying multiples of 4 using a generalisation</li><li>• practise recalling facts with a factor of 8</li><li>• recap recalling facts with a factor of 8</li><li>• explore and solve maths stories matching a multiplication expression</li><li>• write multiplication maths stories to match an expression.</li><li>• recap writing multiplication maths stories to match an expression</li><li>• mark the position of selected multiples of 8 on a number line</li><li>• explore the relationship between multiples of 1, 2, 4 and 8</li><li>• explore whole numbers that lie between multiples of 8</li><li>• recap recognising whole numbers that lie between multiples of 8</li><li>• explore whole numbers that lie between multiples of 8, and write corresponding equations</li><li>• recap writing equations for whole numbers that lie between multiples of 8</li><li>• calculate missing numbers in equations related to multiples of 8</li><li>• practise recalling multiplication and division facts using the worksheet provided</li></ul>	<ul style="list-style-type: none"><li>• 10____s, _____ . 9 ____s, _____.</li></ul>	<ul style="list-style-type: none"><li>• For whole numbers with more than two digits – if the final two-digit number is a multiple of 4, then the whole number is a multiple of 4.</li></ul>



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Wk15	<ul style="list-style-type: none"> <li>recap writing multiplication maths stories to match an expression</li> <li>combine multiples of 8 to create multiples of 8 that are greater than 80</li> <li>partition multiples of 8 that are greater than 80 into 80 and a remaining part</li> <li>calculate how many 8s there are in multiples of 8 that lie between 80 and 160</li> <li>recap calculating how many 8s there are in multiples of 8 that lie between 80 and 160</li> <li>make multiples of 8 by starting with a whole number and doubling 3 times</li> <li>explore how multiples of 8 can be halved 3 times to give a whole number</li> <li>explain why 200 is a multiple of 8</li> <li>recap identifying multiples of 8 by sorting numbers into multiples of 8 and NOT multiples of 8</li> <li>use representations to prove that 100 is NOT a multiple of 8, and 200 IS a multiple of 8</li> <li>identify that all multiples of 200, including multiples of 1000, are multiples of 8</li> <li>recap that all multiples of 200, and therefore all multiples of 1000, are also multiples of 8</li> <li>create larger multiples of 8 by combining multiples of 1000, multiples of 200 and a two-digit or three-digit multiple of 8</li> <li>explore whether numbers with an odd number of 100s can be multiples of 8.</li> <li>recap writing corresponding multiplication and division equations</li> <li>recap identifying the multiplicative relationship between quantities in a ratio table</li> <li>find missing numbers in ratio tables</li> <li>practise recalling multiplication and division facts using the worksheet provided</li> </ul>	<ul style="list-style-type: none"> <li>Double _____ is _____ ; double _____ is _____ ; double _____ is _____ .</li> <li>Half of _____ is _____ ; half of _____ is _____ ; half of _____ is _____ .</li> <li>The number of _____ is ALWAYS _____ times the number of _____ .</li> </ul>	<ul style="list-style-type: none"> <li>To make a multiple of 8, start with a whole number and double 3 times.</li> <li>If a number is a multiple of 8, halving 3 times gives a whole number.</li> </ul>
Wk16	<ul style="list-style-type: none"> <li>practise recalling facts with a factor of 9</li> <li>explore why 9 times a number is equal to 10 times the number subtract 1 times the number</li> <li>recap facts from Session 1</li> <li>explore whole numbers that lie between multiples of 9, and write corresponding equations</li> <li>calculate missing numbers in equations related to multiples of 9</li> <li>recap facts from the 9 times table</li> <li>explain what each factor represents in an expression</li> </ul>	<ul style="list-style-type: none"> <li>10 _____s subtract 1 _____ is equal to 9 _____s.</li> <li>9 _____s is equal to 10 _____s subtract 1 _____.</li> <li>10 _____s, _____ . 9 _____s, _____ .</li> <li>_____ty is _____ 10s.</li> </ul>	

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	<ul style="list-style-type: none"> <li>partition multiples of 10 into multiples of 9 and multiples of 1</li> <li>recap how many 9s and 1s there are in a multiple of 10</li> <li>consider how many 1s need to be added to a multiple of 9 to make a multiple of 10</li> <li>consider how many 9s and 1s there are in a multiple of 10 and start to connect this to division equations</li> <li>recap connections between multiplication and addition equations, and division equations</li> <li>practise recalling multiplication and division facts using the worksheet provided</li> </ul>	<ul style="list-style-type: none"> <li><math>\underline{\quad}</math> 10s is a multiple of 9 add <math>\underline{\quad}</math> 1s.</li> </ul>	
Wk17	<ul style="list-style-type: none"> <li>recap how many 9s and 1s there are in a multiple of 10 and connect this to division</li> <li>start to recognise that a multiple of 9 has a digit sum of 9</li> <li>recap that 81 is a multiple of 9 and a square number</li> <li>start to recognise that all multiples of 9 have a digit sum that is a multiple of 9</li> <li>recap that all two-digit multiples of 9 that are less than 99 have a digit sum of 9</li> <li>consider the digit sum of three-digit multiples of 9</li> <li>understand that all multiples of 9 have a digit sum that is a multiple of 9</li> <li>recap that all multiples of 9 have a digit sum of 9</li> <li>apply their knowledge about the digit sum of multiples of 9 to larger numbers and contexts</li> <li>recap knowledge about the digit sum of multiples of 9</li> <li>practise recalling multiplication and division facts using the worksheet provided</li> </ul>		<ul style="list-style-type: none"> <li>A multiple of 9 has a digit sum that is a multiple of 9.</li> </ul>
Wk18	<ul style="list-style-type: none"> <li>recap products in the 3 times table</li> <li>sort numbers into 'multiples of 3' and 'NOT multiples of 3'</li> <li>explore the digit sum of numbers that are multiples of 3</li> <li>recap that a multiple of 3 has a digit sum that is a multiple of 3</li> <li>explore why this digit sum rule works</li> <li>recap that a multiple of 3 has a digit sum that is a multiple of 3</li> <li>refine the digit sum rule for larger numbers</li> <li>apply the generalisation that a number is a multiple of 3 if, when you repeatedly find the digit sum until you get a single-digit number, that sum is 3, 6 or 9</li> </ul>	<ul style="list-style-type: none"> <li>The digit sum of <math>\underline{\quad}</math> is <math>\underline{\quad}</math>; the digit sum of <math>\underline{\quad}</math> is <math>\underline{\quad}</math>; etc.</li> </ul>	<ul style="list-style-type: none"> <li>A number is a multiple of 3 if, when you repeatedly find the digit sum until you get a single-digit number, that sum is 3, 6 or 9.</li> <li>A multiple of 3 has a digit sum that is a multiple of 3.</li> </ul>

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	<ul style="list-style-type: none"> <li>• apply their understanding about multiples of 3 and multiples of 9 to different contexts</li> <li>• recap knowledge about the digit sum of multiples of 3</li> <li>• practise recalling multiplication and division facts using the worksheet provided</li> </ul>		
Wk19	<ul style="list-style-type: none"> <li>• recall products in the 6 times table</li> <li>• explore the properties of multiples of 3 and multiples of 6</li> <li>• sort numbers into multiples of 3 and multiples of 6</li> <li>• recap the properties of multiples of 3 and multiples of 6</li> <li>• explore how a multiple of 6 is even and has a digit sum that is a multiple of 3</li> <li>• apply their knowledge of multiples of 6 to contexts where they divide into 6s or divide between 6</li> <li>• recap that a multiple of 6 is even and has a digit sum that is a multiple of 3</li> <li>• apply this rule to the short-division algorithm</li> <li>• recap the generalisation that a number is a multiple of 6 if it is even and has a digit sum that is a multiple of 3</li> <li>• apply their understanding about multiples of 6 to different contexts</li> <li>• recap knowledge about the properties of multiples of 6</li> <li>• recap how to apply their understanding about multiples of 6 to a context</li> <li>• practise recalling multiplication and division facts using the worksheet provided</li> </ul>	<ul style="list-style-type: none"> <li>• The digit sum of _____ is _____ ; the digit sum of _____ is _____ ; etc.</li> </ul>	<ul style="list-style-type: none"> <li>• A number is a multiple of 6 if it is even and has a digit sum that is a multiple of 3.</li> </ul>
Wk20	<ul style="list-style-type: none"> <li>• recap how to identify multiples of 4 using a generalised statement</li> <li>• practise recalling facts with a factor of 7</li> <li>• explain how to use one multiplication fact to work out another multiplication fact when one of the factors is the same</li> <li>• recap how to use one multiplication fact to work out another multiplication fact when one of the factors is the same</li> <li>• recall multiplication and division facts from the 7 times table</li> <li>• write multiplication and division stories referring to the unit size and number of units, and to the product or dividend</li> <li>• identify whether statements referring to multiples of 7 are true or false</li> <li>• solve a maths story by rounding a number to the nearest multiple of 7</li> <li>• practise writing multiplication and division stories referring to the unit size and number of units, and the product or dividend</li> </ul>		<ul style="list-style-type: none"> <li>• For whole numbers with more than two digits: if the final two-digit number is a multiple of 4, then the whole number is a multiple of 4.</li> </ul>

Y5	Pupils will:	Stem sentences	Generalisations
	<ul style="list-style-type: none"> <li>adjust the product in a multiplication maths story to match a change in the unit size or number of units</li> <li>recap writing division maths stories from information given in a multiplication maths story</li> <li>use a bar model to explore division stories involving a length of ribbon</li> <li>match equations to multiplication and division stories</li> <li>find approximate answers to maths stories by rounding</li> <li>draw lines that are <math>\frac{1}{7}</math> times the length of a given length</li> <li>practise recalling multiplication and division facts using the worksheet provided</li> </ul>		
Wk21	<ul style="list-style-type: none"> <li>recap how to identify multiples of 8 using a generalised statement</li> <li>practise recalling facts with a factor of 12</li> <li>recap facts with a factor of 12</li> <li>use the distributive property to recap why 12 times a number is equal to 10 times the number add 2 times the number</li> <li>use the distributive property to calculate 12 times larger numbers</li> <li>explore how the product changes when one factor changes and one factor stays the same.</li> <li>recap how the product changes if one factor changes and the other factor remains the same</li> <li>explore maths stories that involve dividing by 12 when the dividend is not a multiple of 12</li> <li>recap exploring maths stories that involve dividing by 12 when the dividend is not a multiple of 12</li> <li>use ratio tables to solve maths stories</li> <li>apply their understanding of multiplicative relationships within ratio tables to identify the unit ratio</li> <li>use the unit ratio to calculate larger numbers missing from the ratio table.</li> <li>Recap how to identify multiples of 3 and multiples of 4</li> <li>explore how to identify a multiple of 12</li> <li>practise recalling multiplication and division facts using the worksheet provided</li> </ul>	<ul style="list-style-type: none"> <li>10 ____s, ____ . 12 ____s, ____ .</li> <li>The number of ____ is ALWAYS ____ times the number of ____ .</li> </ul>	<ul style="list-style-type: none"> <li>If a number is a multiple of 8, halving 3 times gives a whole number.</li> <li>For a number to be a multiple of 12, it needs to be a multiple of both 3 and 4.</li> <li>A number is a multiple of 3 if when you repeatedly find the digit sum, until you get a single-digit number, that sum is 3, 6 or 9.</li> <li>For whole numbers with more than two digits: if the final two-digit number is a multiple of 4, then the whole number is a multiple of 4.</li> </ul>



Y5	Pupils will:	Stem sentences	Generalisations
Wk22	<ul style="list-style-type: none"> <li>scale known multiplication facts by 10</li> <li>scale known multiplication facts by 100</li> <li>apply multiplication facts to a context</li> <li>recap scaling known multiplication facts by 10 or 100</li> <li>scale division facts derived from multiplication tables by 10</li> <li>scale division facts derived from multiplication tables by 100</li> <li>recap scaling division facts</li> <li>consider what happens if the dividend and the divisor are both multiplied by 10 or 100</li> <li>recap what happens if the dividend and the divisor are both multiplied by 10 or 100</li> <li>use their knowledge of facts and scaled facts to approximate, or to find an exact solution, in a multiplication or division context</li> <li>recap how to apply facts that have been scaled</li> <li>practise recalling multiplication and division facts using the worksheet provided</li> </ul>	<ul style="list-style-type: none"> <li>_____ times _____ (ones/tens/hundreds) is equal to _____ (ones/tens/hundreds).</li> <li>_____ (ones/tens/hundreds), _____ times is equal to _____ (ones/tens/hundreds).</li> <li>_____ (ones/tens/hundreds) divided by _____ is equal to _____ (ones/tens/hundreds).</li> </ul>	<ul style="list-style-type: none"> <li>If one factor is multiplied by [10, 100], the product is multiplied by [10, 100].</li> <li>If the dividend is multiplied by [10, 100] and the divisor is kept the same, the quotient is multiplied by [10, 100].</li> <li>If the dividend and the divisor are both multiplied by [10, 100], the quotient remains the same.</li> </ul>
Wk23	<ul style="list-style-type: none"> <li>connect fractions to division and decimals</li> <li>scale known multiplication facts by <math>\frac{1}{10} / 0.1</math></li> <li>recap scaling multiplication facts by <math>\frac{1}{10} / 0.1</math></li> <li>connect fractions to division and decimals</li> <li>scale known multiplication facts by <math>\frac{1}{100} / 0.01</math></li> <li>recap scaling multiplication facts by <math>\frac{1}{10} / 0.1</math> or <math>\frac{1}{100} / 0.01</math></li> <li>apply facts to a context</li> <li>consider the value of digits when using different units of money</li> <li>recap scaling multiplication facts by <math>\frac{1}{10}</math> or <math>\frac{1}{100}</math></li> <li>apply facts to contexts</li> <li>recap applying facts that have been scaled</li> <li>practise recalling multiplication and division facts using the worksheet provided</li> </ul>	<ul style="list-style-type: none"> <li>_____ (ones/tenths/hundredths), _____ times is equal to _____ (ones/tenths/hundredths).</li> <li>_____ times _____ (ones/tenths/hundredths) is equal to _____ (ones/tenths/hundredths).</li> </ul>	<ul style="list-style-type: none"> <li>If one factor is made <math>\frac{1}{10}</math> the size, the product is <math>\frac{1}{10}</math> the size.</li> <li>If one factor is divided by 10, the product is divided by 10.</li> <li>If one factor is made <math>\frac{1}{100}</math> the size, the product is <math>\frac{1}{100}</math> the size.</li> <li>If one factor is divided by 100, the product is divided by 100.</li> </ul>



Y5	Pupils will:	Stem sentences	Generalisations
Wk24	<ul style="list-style-type: none"><li>connect scaled multiplication facts with a missing number to division</li><li>scale known division facts by <math>\frac{1}{10} / 0.1</math></li><li>recap scaling known division facts by <math>\frac{1}{10} / 0.1</math></li><li>use multiplication and division facts scaled by <math>\frac{1}{10} / 0.1</math> in a ratio table</li><li>recap using multiplication and division facts scaled by <math>\frac{1}{10} / 0.1</math> in a ratio table</li><li>scale known division facts by <math>\frac{1}{100} / 0.01</math></li><li>use multiplication and division facts scaled by <math>\frac{1}{100} / 0.01</math> in a ratio table</li><li>recap scaling multiplication and division facts by <math>\frac{1}{10}</math> or <math>\frac{1}{100}</math></li><li>apply facts to contexts</li><li>recap applying facts that have been scaled</li><li>practise recalling multiplication and division facts using the worksheet provided</li></ul>	<ul style="list-style-type: none"><li><math>\frac{\quad}{\quad}</math> (ones/tenths) is equal to <math>\frac{\quad}{\quad}</math> times <math>\frac{\quad}{\quad}</math> (ones/tenths).</li><li><math>\frac{\quad}{\quad}</math> (ones/tenths/hundredths) divided by <math>\frac{\quad}{\quad}</math> is equal to <math>\frac{\quad}{\quad}</math> (ones/tenths/hundredths).</li><li><math>\frac{\quad}{\quad}</math> point <math>\frac{\quad}{\quad}</math> is equal to <math>\frac{\quad}{\quad}</math> (tenths).</li><li>The number of <math>\frac{\quad}{\quad}</math> is ALWAYS <math>\frac{\quad}{\quad}</math> times the number of <math>\frac{\quad}{\quad}</math>.</li></ul>	<ul style="list-style-type: none"><li>If the dividend is divided by [10, 100] and the divisor stays the same, the quotient is divided by [10, 100].</li></ul>
Wk25	<ul style="list-style-type: none"><li>describe what each number represents in a multiplication expression</li><li>connect a multiplication expression to a unitised counter representation</li><li>consider what changes in a multiplication expression when one of the factors is increased by 1</li><li>consider what changes in a multiplication expression when one of the factors is decreased by 1</li><li>recap describing what each number represents in a multiplication expression</li><li>connect a change in a multiplication expression to a context</li><li>recap connecting a change in a multiplication expression to a context</li><li>consider how increasing one of the factors in a multiplication equation by 1 changes the product</li><li>recap how increasing one of the factors in a multiplication equation by 1 changes the product</li><li>consider how decreasing one of the factors in a multiplication equation by 1 changes the product</li><li>recap what numbers represent in an expression</li><li>practise applying their understanding of how the product changes when one of the factors in a multiplication equation increases or decreases by 1</li></ul>	<ul style="list-style-type: none"><li><math>\frac{\quad}{\quad}</math>, <math>\frac{\quad}{\quad}</math> times.</li><li><math>\frac{\quad}{\quad}</math> s.</li><li><math>\frac{\quad}{\quad}</math> represents the unit size.</li><li><math>\frac{\quad}{\quad}</math> represents the number of units.</li></ul>	



Y5	Pupils will:	Stem sentences	Generalisations
Wk26	<ul style="list-style-type: none"><li>• recap applying their understanding of how the product changes when one of the factors in an equation increases or decreases by 1</li><li>• use a stamping gesture with an expression or equation to reinforce what each factor represents</li><li>• use one multiplication fact to work out a related fact</li><li>• recap using one multiplication fact to work out a related fact</li><li>• consider how a product changes in a range of contexts</li><li>• recap how a product changes in a given context</li><li>• continue to use a stamping gesture and unitised counters to 'feel', 'see' and 'say' the maths</li><li>• practise using one multiplication fact to work out a missing product in a related fact in which the factor that changes is not always in the same position</li><li>• recap how to use one multiplication fact to work out a missing product in a related fact in which the factor that changes is not always in the same position</li><li>• apply their learning to contexts involving decimals</li><li>• recap how to use one multiplication fact to work out a related fact in a context involving decimals</li><li>• write their own maths stories using one multiplication fact to work out a related fact</li></ul>	<ul style="list-style-type: none"><li>• _____, _____ times.</li><li>• _____ _____s.</li><li>• _____ represents the unit size.</li><li>• _____ represents the number of units.</li></ul>	
Wk27	<ul style="list-style-type: none"><li>• represent a maths story in different ways</li><li>• explore how expressions, equations and unitised counters can represent combinations of different units</li><li>• explain what each number represents in expressions and equations</li><li>• recap how expressions, equations and unitised counters can represent combinations of different units</li><li>• explore how to balance an equation using a part–part–whole diagram to represent it</li><li>• recap how to balance an equation using a part–part–whole diagram to represent it</li><li>• explore how to balance an equation using an array to represent it</li><li>• recap how to balance an equation using an array to represent it</li></ul>	<ul style="list-style-type: none"><li>• _____ represents the unit size.</li><li>• _____ represents the number of units.</li></ul>	

Y5	Pupils will:	Stem sentences	Generalisations
	<ul style="list-style-type: none"> <li>• explore how when adding multiplication expressions that have a common factor, the distributive law can be applied</li> <li>• recap how when adding multiplication expressions that have a common factor, the distributive law can be applied</li> <li>• connect the distributive law of multiplication over addition to arrays and unitised counters</li> <li>• begin to apply the distributive law to contexts</li> </ul>		
Wk28	<ul style="list-style-type: none"> <li>• recap applying the distributive law of multiplication over addition to a context</li> <li>• compare expressions/equations to consider efficiency when finding a total</li> <li>• recap comparing expressions/equations to consider efficiency when finding a total</li> <li>• explore how when you subtract one multiplication expression from another, and they have a common factor, the distributive law can be applied</li> <li>• balance an equation using a part–part–whole diagram to represent it.</li> <li>• recap how to balance an equation and use a part–part–whole diagram to represent it</li> <li>• complete equations using knowledge of the distributive law (multiplication over subtraction) and unitised counters</li> <li>• recap how to balance an equation using the distributive law (multiplication over subtraction)</li> <li>• apply the distributive law (multiplication over subtraction) to a context</li> </ul>		
Wk29	<ul style="list-style-type: none"> <li>• apply the distributive law</li> <li>• express a number as the sum of its parts</li> <li>• use the distributive law when 13 is a factor</li> <li>• recap using the distributive law when 13 is a factor</li> <li>• explore expressing a factor (14) as an addition expression or as a multiplication expression (when multiplying by 14)</li> <li>• use brackets with three factors</li> <li>• recap expressing a factor as an addition expression or as a multiplication expression (when multiplying by 14)</li> </ul>		<ul style="list-style-type: none"> <li>• When three factors are multiplied together, the pair of factors in brackets are multiplied first.</li> <li>• When the order of the factors is changed, the product remains the same.</li> <li>• The product of 5 and an EVEN number is a multiple of 10.</li> </ul>



Y5	Pupils will:	Stem sentences	Generalisations
	<ul style="list-style-type: none"> <li>• consider how reordering factors can make a calculation easier to solve (when multiplying by 14)</li> <li>• recap how reordering factors can make a calculation easier to solve (when multiplying by 14)</li> <li>• express a factor as an addition expression or as a multiplication expression (when multiplying by 15)</li> <li>• recap expressing a factor as an addition expression or as a multiplication expression (when multiplying by 15)</li> <li>• recognise that when there is an even factor and the factor 5, the product will be a multiple of 10</li> <li>• change a two-factor multiplication calculation into a three-factor multiplication calculation, adding brackets to make it easier to solve</li> </ul>		
Wk30	<ul style="list-style-type: none"> <li>• recap expressing a number as the product of its factors (when multiplying by 15)</li> <li>• express a factor as an addition expression or as a multiplication expression (when multiplying by 16)</li> <li>• recap expressing a factor as an addition expression or as a multiplication expression (when multiplying by 16)</li> <li>• express a factor as an addition expression (when multiplying by 17)</li> <li>• recap expressing a factor as an addition expression (when multiplying by 17)</li> <li>• express a factor as an addition expression or as a multiplication expression (when multiplying by 18)</li> <li>• recap expressing a factor as an addition expression or as a multiplication expression (when multiplying by 18)</li> <li>• express a factor as an addition expression and as a subtraction expression (when multiplying by 19)</li> <li>• recap expressing a factor as an addition expression and as a subtraction expression (when multiplying by 19)</li> <li>• multiply multiples of 10 by 19</li> <li>• compare calculations that involve multiplying by 19</li> </ul>		<ul style="list-style-type: none"> <li>• When three factors are multiplied together, the pair of factors in brackets are multiplied first.</li> <li>• The product of 5 and an EVEN number is a multiple of 10.</li> </ul>